

D.5.1



# INDEX TO ADMINISTRATIVE RECORD

DATE	AUTHOR	TITLE	RECIPIENT	FILE
08/08/80	Carstab Corporation	Notification of Hazardous Waste Activity	U.S. Environmental Protection Agency	RCRA files
11/13/80	Carstab Corporation	RCRA Part A application	U.S. Environmental Protection Agency	RCRA files
06/01/81	Carstab Corporation	Notification of Hazardous Waste Site	U.S. Environmental Protection Agency	CERCLA files
03/31/82	U.S. Environmental Protection Agency	Letter RE: request for RCRA Part B application	Carstab Corporation	RCRA files
09/14/82	Carstab Corporation	Letter RE: Carstab's decision to revert to generator status effective October 1, 1982	U.S. Environmental Protection Agency	RCRA files
04/01/85	Ohio Environmental Protection Agency	Letter RE: Hazardous Waste Activity Status	Carstab Corporation	RCRA files
08/26/89	Morton International, Inc.	Notification of Hazardous Waste Activity	U.S. Environmental Protection Agency	RCRA files
08/19/91	Ecology & Environment, Inc.	CERCLA Screening Site Inspection Report for Carstab Corporation	U.S. Environmental Protection Agency	CERCLA files
05/07/93	PRC Environmental Management, Inc.	CERCLA Expanded Site Inspection Report for Carstab Corporation	U.S. Environmental Protection Agency	CERCLA files
07/08/98	TechLaw, Inc.	Preliminary Assessment/Visual Site Inspection Report for Morton International, Inc.	U.S. Environmental Protection Agency	RCRA files
03/28/00	U.S. Environmental Protection Agency	Letter RE: RCRA Section 3008(h) Order on Consent	Morton International, Inc.	RCRA files
04/26/00	Roim and Haas Company/David Kurland	Letter RE: Morton International, Inc.	U.S. Environmental Protection Agency	RCRA files





Direct Dial.: (215) 592-6838  
Dept. Fax #: (215) 592-3227  
E-mail: JLEVIN@ROHMHAAS.COM

December 17, 2004

**Via Facsimile and Federal Express, Overnight**

Mirtha Capiro  
Project Coordinator  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard, DE-9J  
Chicago, IL 60604

**Re: RCRA Section 3013 Administrative Order,  
Morton International, Inc.  
U.S. EPA ID No. OHD 000 724 138  
RCRA Docket No. R 3013-5-00-001**

Dear Ms. Capiro:

This will serve to notify EPA that effective January 1, 2005, the Cincinnati facility ("Facility") located at 2000 West Street, Cincinnati, Ohio, currently owned and operated by Morton International, Inc., a wholly-owned subsidiary of Rohm and Haas Company, will be owned and operated by "Rohm and Haas Chemicals LLC." Rohm and Haas Chemicals LLC, a newly-formed entity, is also a wholly-owned subsidiary of Rohm and Haas Company.

This change is the result of an internal restructuring of certain assets owned and operated by Morton International, Inc. Therefore, the parent corporation owning and operating the Facility will not change. This internal restructuring will result in a change of the name of the Facility to Rohm and Haas Chemicals LLC. This transfer will not affect the operations of the Facility or our project staff, and Rohm and Haas Chemicals acknowledges that it shall have full responsibility for compliance with the RCRA Section 3013 Order issued to Morton International, Inc., RCRA Docket No. R 3013-5-00-001 as of January 1, 2005. We shall advise you of any unanticipated changes in the restructure before that date, should they arise.

If you have any questions, please contact me or Carl Coker, our Corporate Remediation Project Coordinator, at 215-785-7193.

Sincerely,

  
Jennifer Berke Levin  
Senior Counsel

JBL/jcl

cc: Bruce Beiser  
Carl J. Coker  
Mark Hemingway (Geomatrix)  
Thomas Nash (EPA, Office of Regional Counsel)  
Eric Walker

TO:  
ENGINEERING DIVISION  
3100 STATE ROAD  
CROYDON, PA 19021  
(215) 785-7000 FAX (215) 785-7458

12 January 2004



Ms. Mirtha Capiro  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency  
Region 5 (DE-9F)  
77 West Jackson Street  
Chicago, Illinois 60604-3590

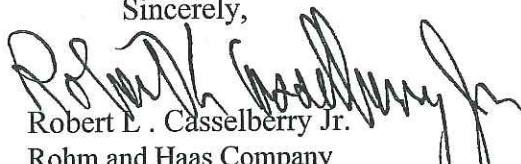
Re: Morton International, Inc.  
Reading, Ohio Facility  
RCRA Docket No. R3013-5-00-001  
Via: Overnight Delivery

This letter is to comply with Section VIII paragraph 71 of the abovementioned order. Carl Coker will be replacing Peter Palena as the designated Project Coordinator for the Rohm and Haas Company and is responsible for overseeing the implementation of the Order. The change has an effective date of January 19<sup>th</sup>, 2004. The following contact information is provided for Mr. Coker:

<b>Address</b>	Rohm and Haas Company Engineering Division 3100 State Road Croydon, PA 19021
<b>Telephone</b>	215-785-7193
<b>Fax Number</b>	215-785-7077
<b>Email Address</b>	<a href="mailto:ccoker@rohmhaas.com">ccoker@rohmhaas.com</a>

We look forward to continuing to work with you in a timely and efficient manner. If you have any questions, please do not hesitate to contact me at (215) 785-7917.

Sincerely,

  
Robert L. Casselberry Jr.  
Rohm and Haas Company  
Corporate Remediation Program Manager

cc: Bruce Beiser  
Mark Hemingway, Geomatrix  
Jennifer Berke-Levin



David C. Kurland, Esq.  
Tele: (215) 592-3691  
Fax: (215) 592-3227  
E-mail: David\_C\_Kurland@RohmHaas.com

September 19, 2000

Via Facsimile (312) 886-7160  
and US Mail

✓ Ms. Mirtha Capiro  
Enforcement and Compliance Assurance Branch Waste,  
Pesticides and Toxics Division U.S. Environmental  
Protection Agency  
Region 5 (DE-9F)  
77 West Jackson Street  
Chicago, Illinois 60604-3590

Mr. Thomas Nash  
US Environmental Protection Agency Region 57  
7 West Jackson Boulevard C-14J

Chicago, IL 60604-3590

Re: Morton's Response to EPA's Order under RCRA § 3013

Dear Ms. Capiro and Mr. Nash:

It has come to my attention that the last sentence was accidentally omitted from the first page of Morton International Inc.'s Proposal for Carrying Out Monitoring, Testing, Analysis and Reporting, and Response to Order Requiring Monitoring, Testing, Analysis and Reporting, dated September 18, 2000. With my apologies, attached please find a replacement page.

Thank you,

David Kurland

A handwritten signature in black ink, appearing to be "David Kurland", written over the printed name.

David C. Kurland, Esq.  
Tele: (215) 592-3691  
Fax: (215) 592-3227  
E-mail: David\_C\_Kurland@RohmHaas.com

September 18, 2000

Via Facsimile (312) 886-7160  
and Overnight Courier  
Airbill # 10094127956

Ms. Mirtha Capiro  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division U.S.  
Environmental Protection Agency  
Region 5 (DE-9F)  
77 West Jackson Street  
Chicago, Illinois 60604-3590

Mr. Thomas Nash  
US Environmental Protection Agency  
Region 57  
7 West Jackson Boulevard C-14J  
Chicago, IL 60604-3590

Re: RCRA Docket No. R3013-5-00-001

Morton International Inc.'s Proposal for Carrying Out Monitoring, Testing, Analysis and  
Reporting, and  
Response to Order Requiring Monitoring, Testing, Analysis and Reporting

Morton hereby submits the attached Proposal for Carrying Out Monitoring, Testing, Analysis and Reporting ("Proposal"), as required by the Order Requiring Monitoring, Testing, Analysis and Reporting, RCRA Docket No. R3013-5-00-001 ("Order"). As agreed at our September 11, 2000 meeting, the Proposal sets forth a schedule by which Morton will submit a Current Conditions Report for the facility, and Workplans for the work required by Section VI of the Order, followed by the implementation of the Workplans and final reporting. The investigation is scheduled for completion by the June 1, 2002 date set forth in the Order, with input and cooperation of EPA. Morton presented a draft of the Proposal by letter dated August 31, 2000 from Mr. Kurland of Rohm and Haas to Ms. Capiro and Mr. Nash of EPA. In a conference in EPA's offices on September 11, 2000, EPA requested certain modifications to the Proposal which Morton has included in the attachment. Morton and EPA agreed at that time that the Proposal will fulfill Morton's obligations to submit such proposal within thirty days as required



under paragraph 57 of the Order. In addition, this letter constitutes Morton's written response to certain other matters in the Order.

#### Parties Bound

In Section II of the Order EPA sets forth the parties it believes are bound by the Order. Under RCRA § 3013 EPA may only issue an order to an owner or operator of a facility. Therefore, the Order applies only to Morton. While Morton will provide a copy of the Order to third parties to the extent necessary to carry out the work required by Section VI of the Order, Morton's engagements with its consultants do not condition contracts on consultants' compliance with the Order because the Order is not binding upon such consultants.

#### Findings of Fact

Section III of the Order sets forth EPA's Findings of Fact which are based on existing data. Morton will submit a Current Conditions Report on October 2, 2000 that will summarize the most current and accurate data available to date with regard to environmental conditions at the facility. Thereafter, the work that Morton will perform pursuant to Section VI of the Order will refine the existing data and complete any data gaps.

However, Morton notes specifically one omission and one error in the Order.<sup>1</sup> Most importantly, the Order makes no mention of the impact of the Pristine Superfund Site which lies directly to the north of and adjacent to the facility. As we discussed at our September 11 meeting, Pristine has caused contamination of soil and groundwater, has been thoroughly studied, and is undergoing remediation pursuant to a ROD. The lower aquifer under the Morton facility has been contaminated by Pristine, and it is likely that the upper aquifer under the Morton facility has been impacted by Pristine as well. The Pristine groundwater pump-and-treat system captures and controls contamination in the lower aquifer across the entire Morton site. Several recovery and monitoring wells associated with Pristine are located on the Morton facility. Pristine is almost certainly the cause of the production well closures noted in paragraph 14 of the Order, and the other referenced production wells are monitored frequently. Since the contamination in the lower aquifer has been defined and is under active remediation, Morton's proposed investigation will focus initially on defining and characterizing the upper aquifer.

Facts recited in the Order regarding ownership of the public recreation areas are incorrect. The public recreation area consisting of the city park, public pool, and municipal stadium are not owned by Morton, but rather are owned by the City of Reading. The baseball fields are on property owned by Morton, but are outside the facility security fence, and are managed and maintained by the City of Reading.

#### Workplan for Mill Creek

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<sup>1</sup> By noting specific errors and omissions, Morton does not admit any other Findings of Fact in the Order.



*Corrective action*



April 28, 2000

RECEIVED

MAY 05 2000

Enforcement & Compliance Assurance Branch  
Waste, Pesticides & Toxics Division  
U.S. EPA — REGION 5

Joseph M. Boyle, Chief  
United States Environmental Protection Agency  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: Morton International Inc.  
Reading, Ohio Facility  
EPA ID # OHD 724138

Dear Mr. Boyle;

Morton International, Inc. (Morton) is pleased to respond to your letter dated March 28, 2000 addressed to Mr. Glenn Schaaf regarding a proposed Administrative Order on Consent (AOC) under RCRA 3008(h). As suggested in your letter, Morton and USEPA Region 5 held a meeting on April 17, 2000 to discuss corrective action at the facility.

Morton recognizes and appreciates the flexibility and streamlined process embodied in the proposed AOC. Specifically, the proposed AOC focuses on achieving measurable environmental results rather than requiring submittal and approval of multiple rounds of workplans and reports. Additionally, the proposed AOC allows the use of risk-based screening levels, risk-based cleanup criteria, and realistic exposure scenarios. These are great improvements in the corrective action process, and Morton hopes to see them incorporated into any corrective action that may be necessary at the facility.

An investigation has already begun to determine the groundwater flow and chemistry at the facility. There is very little existing data, so the hydrogeology is largely unknown and a conceptual site model can not be built. Therefore, the first phase of the investigation will be a documentation of current conditions, including a description of the interim measures that have been implemented to date (which consist of a concrete slurry wall and groundwater collection trench) and an analysis of the existing data from the adjacent Pristine Superfund site to determine whether any contamination from the Morton site has

impacted the deep aquifer. Second, Morton will install a well system in the shallow aquifer (and the deep aquifer if necessary) to determine groundwater flow, direction and chemistry. Approximately 18 months of periodic monitoring will be required before enough data are available to draw conclusions with a reasonable degree of confidence. This data will allow an evaluation of the Environmental Indicators, and a determination of whether any remedial actions may be necessary. At this time, there are no known conditions that would require additional interim measures. Morton currently believes that it can complete this process approximately 22-24 months from now, and will regularly communicate its progress and solicit input from EPA regardless of whether an AOC or other document is finalized.

Morton does have concerns about the proposed AOC, and is not prepared to accept it in its current form. On an administrative level, Morton does not believe that an AOC is necessary at this facility, which has a history of cooperation with the agency including the installation of an interim measure without the issuance of an Order, and a demonstrated commitment to pursuing a reasonable investigation. Therefore Morton requests that this corrective action be managed under the voluntary program, and is willing to submit additional information or engage in further discussions to address any concerns that EPA may have regarding this request.

Morton's central concern with the proposed AOC is that there is insufficient data about the groundwater to allow Morton to be certain that it can demonstrate, by April 1, 2002, that the Environmental Indicators have been met, as would be required by paragraph 13. Please understand that this is not due to a lack of willingness, but to a lack of data. Instead, Morton proposes that a voluntary agreement be entered for Morton to undertake the investigation described above, and to present an investigation report, risk assessment as necessary, and Environmental Indicator evaluation by April 1, 2002. Depending on the results, a Corrective Measures Study would be submitted if necessary to achieve a "yes" on both Environmental Indicators. This is very similar to the voluntary program implemented by USEPA Region 3 to meet its goals under the Environmental Indicator program.

Morton would also consider entering into an AOC if it tracked the program set forth above, but there are other concerns regarding the proposed AOC that would have to be addressed. Specifically:

- RCRA 3008(h) only extends to release of hazardous waste, so references to hazardous constituents must be removed.
- Each individual guidance document that is applicable to the program must be incorporated by specific reference.
- The investigation and any remediation should be to appropriate risk-based levels. Generic references to "unacceptable threats" should be tied to reasonable, objective and mutually acceptable risk-based standards.

Joseph M. Boyel, Chief  
EPA- Enforcement and Compliance Assurance Branch  
April 28, 2000  
Page 3.

- The AOC or voluntary agreement should extend to the completion of the investigation, the submission of an investigation report, and the submission of a CMS as necessary to meet the Environmental Indicators.
- Progress reporting should be semi-annual.
- Access to the facility should track the language of 40 CFR § 270.30(i).
- Recordkeeping should be for three years, unless otherwise required under RCRA.
- Stipulated penalties should not apply, or should be dramatically reduced from those proposed, and should be subject to further reduction at the discretion of the EPA project manager.
- Under dispute resolution, the "EPA Dispute Decision" should be a final determination for purposes of administrative or judicial review.
- Morton will not agree to indemnify the United States, unless the United States provides equivalent indemnification to Morton.

Finally, please allow me to clarify two administrative issues raised by Ms. Capiro and Mr. Nash. First, despite the acquisition of Morton by Rohm and Haas Company on June 22, 1999, the owner and operator of the facility for legal and regulatory purposes continues to be Morton. Second, please make note of the following personnel changes: Mr. Schaaf will retire at the end of April, 2000 and Ms. Robin Cole will become the Environmental Health and Safety Manager at the facility. The corrective action process will be coordinated by Rohm and Haas' corporate remediation department, and the Project Manager will be Mr. Peter Palena. Please address all correspondence relating to corrective action to:

Mr. Palena  
Remediation Manager  
Rohm and Haas Company  
Engineering Division  
P.O. Box 584  
Route 413 and State Road  
Bristol, Pennsylvania 19007  
(215)785-7079

with copies to:

Mr. Bruce Beiser  
Plant Manager  
Morton International, Inc.  
2000 West Street  
Reading, Ohio 45215-3431

and

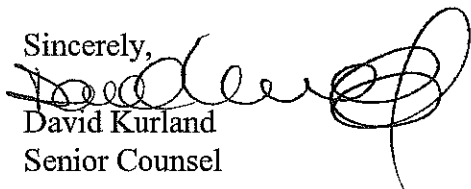
Mr. David Kurland  
Senior Counsel  
Rohm and Haas Company

Joseph M. Boyel, Chief  
EPA- Enforcement and Compliance Assurance Branch  
April 28, 2000  
Page 4.

100 Independence Mall West  
Philadelphia, PA 19106-2399  
215-592-3691

Thank you for your consideration of these matters. Morton is committed to implementing the investigation described in this letter, incorporating any justifiable suggestions EPA may make to that investigation, and looks forward to reaching a mutually acceptable agreement with EPA describing the investigation.

Sincerely,



David Kurland  
Senior Counsel

DCK:vjc

cc: Mirtha Capiro  
Tom Nash  
Bruce Beiser  
Peter Palena

Joseph M. Boyel, Chief  
EPA- Enforcement and Compliance Assurance Branch  
April 28, 2000  
Page 4.

100 Independence Mall West  
Philadelphia, PA 19106-2399  
215-592-3691

Thank you for your consideration of these matters. Morton is committed to implementing the investigation described in this letter, incorporating any justifiable suggestions EPA may make to that investigation, and looks forward to reaching a mutually acceptable agreement with EPA describing the investigation.

Sincerely,



David Kurland  
Senior Counsel

DCK:vjc

cc: Mirtha Capiro  
Tom Nash  
Bruce Beiser  
Peter Palena

bc: Al Holmstrom  
Ken Kastner







David C. Kurland  
Senior Counsel  
Tele: (215) 592-3691  
Fax: (215) 592-3227  
E-mail: David\_C\_Kurland@rohmdhaas.com

August 24, 2000

Thomas Nash, Esq.  
US Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard C-14J  
Chicago, IL 60604-3590

Mirtha Capiro  
US Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard, DE-9J  
Chicago, IL 60604

Dear Mr. Nash and Ms. Capiro;

Morton International Inc. ("Morton") has received US EPA Region 5's Order Requiring Monitoring, Testing, Analysis and Reporting under Section 3013 of RCRA (the "Order"). Pursuant to paragraph 69, Morton designates as its project coordinator:

Mr. Palena  
Remediation Manager  
Rohm and Haas Company  
Engineering Division  
P.O. Box 584  
Route 413 and State Road  
Bristol, Pennsylvania 19007  
(215)785-7079

Pursuant to Section XX of the Order, Morton hereby requests a conference to discuss the Order in USEPA's offices on September 11, 2000 at 10:30 a.m. Morton wishes to clarify its obligations and discuss our plans for performing the investigation in a phased, data-driven approach.

Before our meeting on September 11 we will proposed a schedule for submittal of a Description of Current Conditions and Investigation Workplans, and for implementing the investigation. After our meeting, we will submit the final agreed schedule and request EPA's Project Manager to formally approve it to provide additional time as set forth in paragraph 90 of the Order.

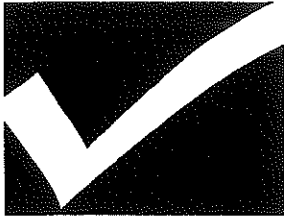
I will call you on September 5 to confirm your availability for a meeting on September 11.

Sincerely,

David Kurland  
Senior Counsel

DCK/vjc





# **Initial Meeting Rohm and Haas Cincinnati Facility Administrative Order on Consent Discussions**

**04/17/00**

**10:00 AM to 12:00 PM**

**U.S. Environmental Protection Agency**

**Region 5**

**77 W. Jackson Street**

**Chicago, IL 60604**

---

## **Type of meeting:**

## **Attendees:**

Peter Palena, Rohm and Haas-Remediation Project Manager

David Kurland, Rohm and Haas-Corporate Legal

Bruce Beiser, Rohm and Haas-Cincinnati Plant Manager

Mirtha Capiro, USEPA Region 5-Project Manager

Thomas Nash, USEPA Region 5-Office of Regional Counsel

## **----- Agenda Topics -----**

1. Meeting Overview	Peter Palena	10:00-10:10 AM
2. Introductions	Peter Palena (All)	10:10-10:20 AM
3. Review of Solid Waste Management Units (SWMUs)	Peter Palena	10:20-10:50 AM
4. Project Schedule	Peter Palena	10:50-11:05 AM
5. Review of AOC Issues	David Kurland	11:05-11:35 AM
6. AOC Negotiation Schedule	David Kurland	11:35-11:50 AM
7. Wrap up	Peter Palena	11:50-12:00 PM

## **Other information**

---

April 17, 2000

Thomas C Nash

ORC

312 886-0552

fax

-0747 or 7160

MIRTHA CAPIZO

U.S. EPA

312/886-7567

David Kurland

Rohm and Haas

215-592-3691

BRUCE BEISER

ROHM AND HAAS

513-733-2179

Peter Palena

Rohm and Haas

215-785-7079

D.5.2





The Dow Chemical Company  
8100 State Road  
Croydon, PA 19021  
U.S.A.

February 04, 2013

Ms. Mirtha Capiro  
United States Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: Rohm and Haas Chemicals LLC / Cincinnati Site  
U.S. EPA ID No. OHD 000 724 138

Dear Ms. Capiro:

On January 31, 2013, The Dow Chemical Company completed the divestiture of its global methyl tin stabilizers and solid lubricants segment of its Plastics Additives business, which included the Cincinnati plant, to PMC Group N.A., Inc. ("PMC").

With this divestiture, the responsibility for continuing the corrective action at the site was transferred to the new owner. As a result of this transfer, the new owner has named Keith Mesch as the new project coordinator. Keith's contact information is:

PMC Group N. A., Inc.  
2000 West Street  
Cincinnati, Ohio 45215  
keith.mesch@pmc-group.com  
(513) 733-2154

If you have any questions please do not hesitate to contact me at 215-785-7193.

Sincerely,

*Carl J. Coker*

Carl J. Coker  
Rohm and Haas Chemicals LLC, A  
subsidiary of The Dow Chemical Company  
Corporate Remediation Project Manager

cc: Mr. Keith Mesch, PMC Group N. A., Inc.





# ROHM AND HAAS

## ROHM AND HAAS COMPANY

100 INDEPENDENCE MALL WEST, PHILADELPHIA, PA 19106-2399 USA  
TELEPHONE: (215) 592-3000 FAX: (215) 592-3227



Direct Dial.: (215) 592-6838  
Dept. Fax #: (215) 592-3227  
E-mail: JLEVIN@ROHMHAAAS.COM

December 9, 2008

Mr. Thomas Nash  
Associate Regional Counsel  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Blvd, C-14-J  
Chicago, IL 60604

**RE: RCRA Section 3013 Administrative Order  
Rohm and Haas Chemicals, LLC (facility formerly owned by Morton International, Inc., a wholly owned subsidiary of Rohm and Haas Co.), 2000 West Street, Reading, OH. U.S. EPA ID No. OHD 000 724 138**

Dear Mr. Nash,

This is a courtesy letter to notify you of planned changes of ownership of Rohm and Haas Company. Rohm and Haas Company is the parent company of Morton International, Inc., which is the former owner and operator of the property listed above and also the parent of Rohm and Haas Chemicals, LLC, which is the current owner/operator of the above facility, which is subject to the above RCRA Section 3013 Administrative Order.

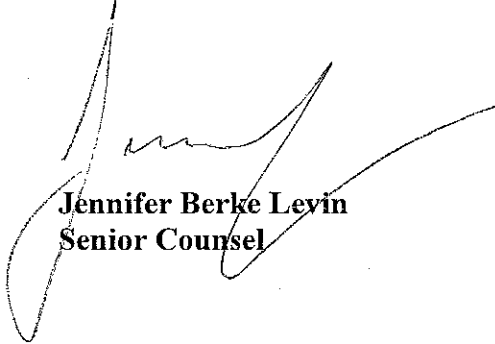
Rohm and Haas Company and The Dow Chemical Company have entered into a merger agreement, pursuant to which Rohm and Haas Company will be merged with a wholly owned subsidiary of The Dow Chemical Company. After closing of the transaction, Rohm and Haas Company will remain a separately incorporated Delaware Corporation, but will no longer be publicly traded; all shares of Rohm and Haas Company will be owned, directly or indirectly, by The Dow Chemical Company. At closing, Morton International, Inc. and Rohm and Haas Chemicals, LLC will continue to be subsidiaries of Rohm and Haas Company. Rohm and Haas Chemicals, LLC will continue to own and operate the facility in Reading, Ohio.

Subject to regulatory approvals and satisfaction of all closing conditions, we anticipate that the transaction will close, on or about January 9, 2009. We will advise you should any unanticipated changes in plans occur before that time.

This change in ownership of Rohm and Haas Company will not affect the remedial activities at the above referenced property, the mailing address or contact person, Carl Coker.

Thank you for your assistance in this matter. If you have any questions, please call me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer Berke Levin", is written over the typed name and title.

**Jennifer Berke Levin**  
**Senior Counsel**

cc: Mirtha Capiro (USEPA)  
Carl Coker  
Keith Mesch  
Mark Kinnett

PRO-ECOM 4412  
12-13-08  
OFFICE OF RECLAMATION  
BUREAU OF RECLAMATION  
WASHINGTON, D.C. 20260



## Waste, Pesticides and Toxics Division

Type of Document: RCRA §3013 Administrative Order

Name of Document: Requirement for investigation at the Morton International, Inc. facility in Reading, OH

Document # \_\_\_\_\_

Originator/Phone: Mirtha Capiro/6-7567

*NOTE: Originator and first level supervisor are responsible for assuring that documents are in plain language. All other reviewers should consider plain language in their reviews. See the plain language checklist on the reverse side of this sheet.*

Date	Name	Secretary/Chief Initials
1 7/12/00	Author MIRTHA CAPIRO	MC
2 7/13/00	Section Chief	GA
4 8/18/00	Branch Chief	JMB
3	ORC TOM NASH Other ORC Section Chief E	TCN w/ A corrections 8/14/00 TLN 8/12/00
	Robert Springer, Director	
	IL/MI State Coordinator	
	IN/MN State Coordinator	
	OH/WI State Coordinator	
	Congressional/Intergovernmental	
	Relation Officer (AL/ORAC)	
	David Ullrich Deputy RA	
	Francis X. Lyons	

Return for Mailing \_\_\_\_\_  
(attach official file copy/return w/originator's Copy)

Correction Required \_\_\_\_\_

REMARKS/COMMENTS



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 5**

**77 WEST JACKSON BOULEVARD**

**CHICAGO, IL 60604-3590**

**AUG 18 2000**

REPLY TO THE ATTENTION OF:

**DE-9J**

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

CT Corporation System  
c/o Registered Agent for Morton International, Inc.  
1300 East 9<sup>th</sup> Street, Suite 1010  
Cleveland, OH 44114

RE: RCRA § 3013 Administrative Order  
Morton International, Inc.  
U.S. EPA ID No. OHD 000 724 138


Dear Sir/Madam:

Enclosed is an Administrative Order issued to Morton International, Inc. (Morton) by the United States Environmental Protection Agency (EPA) pursuant to Section (§) 3013 of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6934.

The Order requires Morton to conduct monitoring, testing, analysis and reporting, in connection with Morton's facility located at 2000 West Street, Reading, Ohio. The Order also requires Morton to submit a proposal for such monitoring, testing, analysis and reporting not later than thirty (30) days from the date this Order is issued. Morton may request a conference with EPA to discuss the Order. Any such conference must be held during the thirty (30) days after the issuance of the Order.

If you have questions concerning this Order, or to schedule a conference, please contact Thomas Nash at 312/ 886-0552.

Sincerely yours,

A handwritten signature in cursive script that reads "Joseph M. Boyle". The signature is written in dark ink and is positioned above the printed name.

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

Enclosure

cc: Harold O'Connell, OEPA  
Amy F. Bohler, OEPA  
Bruce Beiser, Morton  
Peter Palena, Rohm and Haas Co.  
David Kurland, Rohm and Haas Co.

bcc w/ enclosure:

Mirtha Capiro  
Thomas C. Nash, C-14J  
Richard Boice, SR-6J



is issued. Morton may request a conference with EPA to discuss the Order. Any such conference must be held during the thirty (30) days after the issuance of the Order.

If you have questions concerning this Order, or to schedule a conference, please contact Thomas Nash at 312/353-4737.

Sincerely yours,

886-0552 *Corrected*

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

Enclosure

cc: Harold O'Connell, OEPA  
Amy F. Bohler, OEPA  
Bruce Beiser, Morton  
David Kurland, Rohm and Haas Co.

**ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH**

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AUTHOR/ TYPIST	COMPLIANCE SECTION 1 SECTION CHIEF	COMPLIANCE SECTION 2 SECTION CHIEF	CA SECTION SECTION CHIEF	ECAB BRANCH CHIEF	WPTD DIVISION DIRECTOR
MC 7/12/00	—		<i>LA</i> 7-13-00	<i>JMB</i> 8/18/00	—

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*with  
corrections*

*TOW*  
8/2/00





UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

IN THE MATTER OF:	)	RCRA Docket No. R 3013-5-00-001
	)	
Morton International, Inc.	)	
2000 West Street	)	
Reading, Ohio 45215-3431	)	
	)	
EPA ID No. OHD 000 724 138	)	PROCEEDING UNDER SECTION
	)	3013 OF THE RESOURCE
Respondent.	)	CONSERVATION AND RECOVERY
	)	ACT, 42 U.S.C. § 6934

**ORDER REQUIRING MONITORING, TESTING,  
ANALYSIS AND REPORTING**

**I. JURISDICTION**

1. The Administrator of the United States Environmental Protection Agency (EPA) is issuing this Administrative Order (Order) to Morton International, Inc. (Morton) under Section (§) 3013 of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6934. The Administrator has delegated the authority to issue orders under RCRA § 3013 to the Chief, Enforcement and Compliance Assurance Branch; Waste, Pesticides and Toxics Division; U.S. EPA Region 5.
2. Morton International, Inc. (Morton or Respondent) is a corporation organized under the laws of the State of Indiana.
3. On June 30, 1989, the State of Ohio (State) received final authorization pursuant to RCRA § 3006(b), 42 U.S.C. § 6926(b), to operate a hazardous waste program in lieu of the federal hazardous waste program established under RCRA Subtitle C. Pursuant to the Memorandum of Agreement (MOA) between the State of Ohio and EPA, EPA expressly retains its rights to issue Orders and bring actions under § 3013 of RCRA and any other applicable federal statute.
4. This Order is based upon the administrative record compiled by EPA and incorporated herein by reference. The record is available for review by the Respondent and the public at EPA's regional office at 77 West Jackson Boulevard, Chicago, Illinois 60604.

## **II. PARTIES BOUND**

5. The provisions of this Order shall apply to and be binding upon Respondent and its officers, directors, employees, agents, contractors, successors, and assigns.
6. No change in ownership, corporate, or partnership status relating to the facility described in this Order will in any way alter the status or responsibility of Respondent under this Order. Any conveyance by Respondent of title, easement, or other interest in the facility described herein, or a portion of such interest, shall not affect Respondent's obligations under this Order. Respondent shall be responsible for and liable for any failure to carry out all activities required of Respondent by this Order, irrespective of its use of employees, agents, contractors, or consultants to perform any such tasks.
7. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within seven (7) calendar days of the effective date of this Order, or on the date of such retention, and Respondent shall condition all such contracts on compliance with the terms of this Order.
8. Any documents transferring ownership and/or operations of the facility described herein from Respondent to a successor-in-interest shall include written notice of this Order. In addition, Respondent shall, no less than thirty (30) days prior to transfer of ownership or operation of the facility, provide written notice of this Order to its successor-in-interest, and written notice of said transfer of ownership and/or operation to EPA.

## **III. FINDINGS OF FACT**

9. Respondent owns and operates a chemical manufacturing plant located at 2000 West Street, Reading, Ohio on approximately 34 acres (facility) in Hamilton County, Ohio.
10. Mill Creek runs along the western side of the facility. The creek which originates north of the facility, flows for approximately ten (10) miles south of the facility into the Ohio River. The Conrail Railroad tracks run along the eastern side of the facility. Bordering the facility to the north are Cincinnati Drum Service, a drum recycling facility; and Pristine, Inc., a former hazardous waste incineration and disposal facility which is currently a National Priorities List site. A public recreational area is located to the south. This recreational area (which consists of a city park, a public pool, athletic fields, and a municipal stadium) is owned by Morton and managed by the City of Reading. Approximately 12,000 residents live within a one (1)-mile radius of the facility, with the closest residences being located about 750 feet to the south of the Morton facility.
11. Prior to 1949, a dairy farm occupied the western and southern portions of the property currently occupied by the Morton facility. At the same time, the northern section was

occupied by a fireworks manufacturing facility which later became a winery and smokehouse. Since 1950, the facility has operated as a chemical manufacturing plant that produces additives for the plastic and petroleum industries, including synthetic heat stabilizers and lubricants for rigid polyvinyl chloride, asphalt performance chemicals, antioxidants, plastic lubricants, and specialty chemicals. In addition, the facility has supplied chemical products to the textile, paper, and other miscellaneous industries. Previous owners of the facility include Cincinnati Milling Machine, which conducted business under the name of Carlisle Chemical Works from 1949 to 1970, and later changed its name to Cincinnati Milacron; and Carstab Corporation (Carstab), a division of Thiokol, Inc., from 1980 to 1982. Carstab Corporation merged with Morton International Inc. in 1982. The companies separated in 1989, with Morton retaining ownership of the facility. According to a letter dated April 28, 2000, written by David Kurland, Senior Counsel for Rohm and Haas Company, on June 22, 1999, Morton International Inc. was acquired by Rohm and Haas Company. Mr. Kurland's letter states that although Morton is now a wholly owned subsidiary of Rohm and Haas "the owner and operator of the facility for legal and regulatory purposes continues to be Morton."

12. The facility is currently regulated under RCRA as a generator of hazardous waste. Wastes generated (currently or in the past) on-site include spent halogenated solvents (EPA Hazardous Waste Numbers F001 and F002), spent non-halogenated solvents (EPA Hazardous Waste Numbers F003, F004 and F005), recovered methanol (EPA Hazardous Waste Numbers U154, D001, F001, F003 and F005), liquid methanol by-product (EPA Hazardous Waste Numbers F002, F003 and F005), spent solvents and residues (EPA Hazardous Waste Numbers D001, D002, F002, F003 and F005), spent acidic solvents and residues (EPA Hazardous Waste Numbers D001 and D002), recovered acid layers (EPA Hazardous Waste Number D003), scrubber solutions from pollution control processes (EPA Hazardous Waste Numbers D002 and D003), laboratory wastes (EPA Hazardous Waste Numbers D001, D002, D003, D004, D005, D006, D008, D010, D011, U196, F002, F003 and F005), scrap residues containing arsenic and lead (EPA Hazardous Waste Numbers D004 and D008), filter papers and residues (EPA Hazardous Waste Numbers D001, D002, D004, D006 and D008), press cakes and filter cartridges (EPA Hazardous Waste Numbers D002 and D008), solid and liquid wastes from chemical processes (EPA Hazardous Waste Numbers D001, D002, D003, D004, D008, F003, F002 and F005), and spill cleanup solids (EPA Hazardous Waste Numbers D002, D004, D007, D008).<sup>1</sup>

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<sup>1</sup> EPA first promulgated regulations on May 19, 1980 (45 Fed. Reg. 33073), for the identification and listing of wastes that are regulated under RCRA as hazardous wastes for purposes of 40 C.F.R. Parts 262 through 265, 268, 270, 271, and 124 (regulatory hazardous wastes). Regulatory hazardous wastes include wastes that are designated by EPA Hazardous Waste Numbers beginning with the letters D, F, K, P and U. EPA Hazardous Waste Numbers D001 through D003 are described in 40 C.F.R. §§ 261.21 through 261.23. EPA Hazardous Waste Numbers D004 through D043 are described in 40 C.F.R. § 261.24. EPA Hazardous Waste Numbers beginning with "F" are listed and described in 40 C.F.R. § 261.31. EPA Hazardous

13. Local aquifers include unconsolidated glacial outwash deposits of gravel, sand and silt (upper aquifer) and permeable bedrock consisting of shale and limestone (lower aquifer). A 1959 Ohio Department of Natural Resources report states that the upper glacial deposits and the lower permeable bedrock are hydraulically connected. A potential exists for the facility's contaminants to migrate into the upper and lower aquifers.
14. Well fields located within three (3) miles of the facility supply drinking water to three (3) municipalities (Glendale, Lockland and Wyoming) with a population of over 19,000. The city's wells are screened near the surface of the bedrock. Two (2) former City of Reading well fields were located less than one (1) mile from the facility. Some of these wells were closed after concentrations of volatile organic compounds (VOCs) exceeding Maximum Contaminant Levels (MCLs), primarily 1,2-dichloroethane, were detected in the groundwater from the wells. The source of the VOC contamination has not been established due to the complex nature of the local geology.
15. The Respondent currently employs approximately 180 people at the facility.

#### **Description of Study Areas**

16. From 1950 to 1980, six former surface impoundments were used for neutralization and disposal of wastes consisting primarily of dilute hydrochloric acid, methanol, dilute sulfuric acid, resorcinol, and benzoic acid. The disposed wastes may have also contained metals, waste oils, and benzene compounds. Each impoundment is unlined and has been filled in with soil. See Facility Map from Attachment 1, "Former Surface Impoundments."
17. A 10,000-gallon fiberglass tank was formerly used as a hazardous waste neutralization treatment tank. The processes associated with the former hazardous waste tank included neutralization of low pH process wastewaters. Currently, this tank is used for product storage and the wastewater neutralization process has been transferred to a pH control system (see later text). Morton or the previous owner/operator(s) of the facility have not completed a certification of RCRA closure for this tank that complies with 40 C.F.R. § 265.111. There are no available data to determine whether there have been any releases

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Waste Numbers beginning with "K" are listed and described in 40 C.F.R. § 261.32. EPA Hazardous Waste Numbers beginning with "P" and EPA Hazardous Waste Numbers beginning with "U" are listed and described in 40 C.F.R. § 261.33.

The scope of RCRA § 3013 extends not only to such regulatory hazardous wastes, but also to wastes that are hazardous wastes pursuant to RCRA § 1004(5), even though they might not be regulatory hazardous wastes.

from the tank from the time it was used as a hazardous waste management unit. See Facility Map from Attachment 1, "Former Neutralization Tank."

18. A concrete storage pad was used as a hazardous waste drum storage area. Hazardous wastes formerly stored in this area included ignitable waste, spent solvents and, potentially, other liquid hazardous wastes generated at the facility. The concrete pad contains several cracks. Morton or the previous owner/operator(s) of the facility have not completed a certification of RCRA closure for this storage area that complies with 40 C.F.R. § 265.111. There are no available data to determine whether there have been any releases from this area from the time it was used as a hazardous waste storage unit. See Facility Map from Attachment 1, "Former Drum Storage Area."
19. A 10,000-gallon steel aboveground tank was formerly used for storage of hazardous waste, including high pH wastewaters generated by the sulfurizing of fats and oils. The waste was periodically shipped off-site for disposal. The tank is currently used for storing fuel oil. Morton or the previous owner/operator(s) of the facility have not completed a certification of RCRA closure for this tank that complies with 40 C.F.R. § 265.111. There are no available data to determine whether there have been any releases from this tank from the time it was used as a hazardous waste management unit. See Facility Map from Attachment 1, "Former Sulfide Waste Treatment Tank."
20. A groundwater collection system is in place at the facility. This system consists of four components: a french drain, an extraction well, a collection sump and a concrete slurry wall. Contaminated groundwater containing VOCs, semivolatile organic compounds (SVOCs), metals, and, potentially, other contaminants is extracted from the subsurface and transferred to a groundwater treatment unit. A large portion of the treated groundwater is recirculated as make-up water in the facility's recirculating non-contact cooling water system. The remainder of the treated water is discharged to the Municipal Sewer District of Greater Cincinnati (MSDGC). The purpose of the groundwater collection system is to prevent contaminated groundwater from migrating off the site and into Mill Creek. Due to the facility lacking a ground-water monitoring program, there are no groundwater data available to evaluate the effectiveness of the groundwater collection system. See Facility Map from Attachment 1; "French Drain", "Extraction Well", "Collection Sump", and "Concrete Slurry Wall."
21. The facility's wastewater enters a combined sewer system that flows to a pH control system and ultimately discharges to the MSDGC (the facility's wastewater includes a combination of specialty chemical process streams, wash down, cooling water, boiler plant blowdown, sanitary waste, and storm water runoff). The combined sewer system includes floor trenches and weir pits. Prior to the installation of the pH control system in 1993, the combined sewer system discharged directly to the MSDGC and portions of the unit may have potentially discharged to the former surface impoundments. Based on a July 8, 1998, Preliminary Assessment/Visual Site Inspection (PA/VSI) Report from

TechLaw, Inc. (TechLaw), TechLaw representatives were not able to obtain information regarding the construction and exact location of the combined sewer system, including information on how the trenches and the weir pits are connected to the pH control system. In addition, TechLaw representatives were not able to obtain information regarding the constituents of the wastewater. There are no available data to determine whether there have been any releases from the combined sewer system. See Facility Map from Attachment 1, "Location of the Combined Sewer System Unknown."

22. A former swale area may have been used as a dumping ground prior to 1950 when the property was part of a dairy farm. In the early 1950's this area may have been used for the disposal of lime sludge by Carlisle Chemical Works. The area was investigated by OEPA in June 1980 in response to a complaint from a former employee alleging the dumping of waste drums in this area. The results from the Ohio Environmental Protection Agency (OEPA) investigation and further sampling and analysis in this area indicate that there have been releases of VOCs and metals from the swale area into soil and groundwater. See Facility Map from Attachment 1, "Former Swale Area."
23. Based on TechLaw's PA/VSI Report, in June 1979, OEPA became aware of possible releases at Carstab after OEPA personnel observed discolored groundwater leaching from the east bank of Mill Creek along the boundary of Carstab and Cincinnati Drum. The PA/VSI Report adds that during a July 30, 1980, meeting with Carstab representatives, OEPA requested that Carstab perform a hydrogeologic study to determine the source of leachate at Mill Creek and to identify a method of controlling or removing the leachate releases. See Facility Map from Attachment 1, "Mill Creek."

#### **Notifications and Inspections**

- **Notification of Hazardous Waste Activity; Part A and Part B applications; and change from treatment, storage and disposal facility to generator status**
24. Pursuant to §3010 of RCRA, Carstab notified EPA of its hazardous waste activity. In its notification dated August 8, 1980, Carstab identified itself as a generator of hazardous waste and an owner/operator of a treatment, storage, and/or disposal facility for the following hazardous wastes:
    - (A) Hazardous wastes from non-specific sources identified at 40 C.F.R. §261.31 including F005 (spent non-halogenated solvents); commercial chemical products, manufacturing chemical intermediates, off-specification commercial chemical products, or manufacturing chemical intermediates identified at 40 C.F.R. §261.33(f), including U154 (methanol);

- (B) Hazardous wastes exhibiting the characteristic of ignitability, corrosivity, reactivity, and toxicity identified at 40 C.F.R. §261.21 through 261.24, including D001, D002, D003, and D000 (the type of toxicity was not specified); and
  - (C) Other listed materials may occasionally be disposed of in small quantities from laboratory operations.
- 25. Carstab submitted to EPA a RCRA Part A application dated November 13, 1980, that identified the following hazardous wastes at the facility (hazardous waste was managed as follows: container storage (S01), 350,000 gallons capacity; tank storage (S02), 17,000 gallons capacity; and tank treatment (T01), 59,000 gallons per day):
  - (A) Hazardous wastes from non-specific sources identified at 40 C.F.R. §261.31 including F001 (spent halogenated solvents), F003, F004, and F005 (spent non-halogenated solvents);
  - (B) Hazardous wastes exhibiting the characteristic of ignitability, corrosivity, reactivity, and toxicity identified at 40 C.F.R. §261.21 through 261.24, including D001, D002, D003, and D000 (the type of waste toxicity was not specified).
- 26. In a March 31, 1982, letter to Carstab, EPA requested submission of a RCRA Part B application for the facility.
- 27. In a September 14, 1982, letter, Carstab notified EPA of its decision to revert to generator status effective October 1, 1982.
- 28. On April 1, 1985, the Ohio Environmental Protection Agency (OEPA) issued a letter to Dr. Raymond Phillips of Carstab confirming that the Hazardous Waste Activity Status for the facility was that of generator only with less than ninety (90) day storage.
- 29. On June 29, 1989, EPA received a Notification of Hazardous Waste Activity from Morton, dated June 26, 1989, which indicated the change in ownership of the facility to Morton International, Inc. In addition, Morton identified itself as a generator only with less than ninety (90) day storage. Four wastes from nonspecific sources were included: F001, F002 (spent halogenated solvents), F003, and F005 (spent non-halogenated solvents). Four wastes exhibiting characteristics of Non-Listed Hazardous Wastes were included: D001 (ignitable), D002 (corrosive), D003 (reactive), and D000 (characteristic of toxicity--the type of waste toxicity was not specified).
- 30. Morton currently stores hazardous waste for less than ninety (90) days in a Hazardous Waste Storage Area. The Hazardous Waste Storage Area is not a study area at the facility.

The facility's study areas are identified and described above in this section of the Order under "Description of Study Areas".

- **Notification of Hazardous Waste Site**

31. Carstab submitted a Notification of Hazardous Waste Site to EPA pursuant to § 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), dated June 1, 1981. According to the notification, from 1950 to 1980, Carstab Corporation handled wastes from chemical sources, including organics, inorganics, acids, and bases. The notification identifies six (6) impoundments formerly used for treatment, storage and disposal, consisting of one clean water basin, two settling ponds, and three limestone-filled neutralization pits. As the notification indicates, the settling ponds were dredged of sludge and all impoundments were filled. The notification also indicates that "A small area near or under the parking lot is suspected of being used for disposal of building materials and waste sludge in the early fifties. A few drums of waste may have been buried in the lower part of the plant."

- **1990 CERCLA Screening Site Inspection (SSI)**

32. As documented by an August 19, 1991, CERCLA Screening Site Inspection (SSI) Report for Carstab prepared for EPA by Ecology and Environment, Inc. (E&E), E&E collected groundwater and soil samples from various areas of the facility in order to determine whether EPA Target Compound List (TCL) compounds and Target Analyte List (TAL) analytes were present at the facility. Also, E&E collected a sediment sample from a location situated on the east bank of Mill Creek, adjacent to the northwest corner of the facility's property. Samples were analyzed for EPA TCL VOCs, SVOCs, pesticides, and polychlorinated biphenyls (PCBs), and EPA TCL metals.
33. Groundwater samples were collected only from the upper aquifer.
34. Analytical results from the groundwater sampling revealed the presence of VOCs, SVOCs, and metals in groundwater, including the following (maximum concentration values in parenthesis): chlorobenzene (56 parts per billion [ppb]), 1,2-dichlorobenzene (12 ppb), arsenic (32.7 ppb), and vanadium (660 ppb).
35. The analytical results from the soil sampling revealed the presence of VOCs, SVOCs, PCBs, and metals in soil, including the following (maximum concentration values in parenthesis): Aroclor 1254 (550 ppb), arsenic (8.7 ppb), chlorobenzene (12,000 ppb), 1,2-dichlorobenzene (3,300,000 ppb), ethylbenzene (1,600 ppb), fluoranthene (1,000 ppb), pyrene (740 ppb), toluene (5,000 ppb), xylenes (82 ppb), and vanadium (30.8 ppb). Concentration values in parenthesis are estimated with the exception of those from fluoranthene and vanadium.



36. The analytical results from sediment sampling revealed the presence of VOCs, SVOCs, and metals in sediments including the following (concentration values in parenthesis): benzo(a)anthracene (370 ppb), benzo(a)pyrene (440 ppb), benzo(k)fluoranthene (400 ppb), bis(2-ethylhexyl)phthalate (500 ppb), 2-butanone (180 ppb), chlorobenzene (54 ppb), ethylbenzene (82 ppb), fluoranthene (1,000 ppb), phenanthrene (540 ppb), pyrene (740 ppb), xylenes (82 ppb), and vanadium (17.9 ppb). Concentration values in parenthesis are estimated with the exception of those from fluoranthene and vanadium.
37. All of the examples of SVOCs cited above are also known as polycyclic aromatic hydrocarbons (PAHs) with the exception of bis(2-ethylhexyl)phthalate.

- **1993 CERCLA Expanded Site Inspection Report**

38. Based on a May 7, 1993, CERCLA Expanded Site Inspection (ESI) Report for Carstab prepared for EPA by PRC Environmental Management, Inc. (PRC), PRC collected samples from groundwater and soil from various areas of the facility in order to document any observed releases, levels of contamination, and attribution of hazardous substances. Also, PRC collected sediment samples on the eastern bank of Mill Creek adjacent to the facility. The samples were analyzed for EPA TCL VOCs, SVOCs, pesticides, and PCBs. Also, the samples were analyzed for EPA TAL metals and cyanide.
39. Groundwater samples were collected only from the upper aquifer.
40. Analytical results from the groundwater sampling revealed the presence of VOCs, SVOCs, and metals in groundwater, including the following (maximum concentration values in parenthesis): acetone (2,700 ppb), benzene (48 ppb), chlorobenzene (2,300 ppb), 1,2-dichlorobenzene (4,700 ppb), 1,4-dichlorobenzene (640 ppb), ethylbenzene (110 ppb), nickel (57.7 ppb), toluene (630 ppb), vanadium (14.6 ppb), and xylene (360 ppb).
41. Analytical results from soil sampling revealed the presence of SVOCs, PCBs, and metals in soil, including the following (maximum concentration values in parenthesis): Aroclor 1254 (1,000 ppb as estimated), dibenzo(a,h)anthracene (900 ppb), benzo(a)pyrene (7,600 ppb), benzo(g,h,i)perylene (3,300 ppb), bis(2-ethylhexyl)phthalate (1,200 ppb), indeno(1,2,3-c,d)pyrene (3,600 ppb), and vanadium (29.3 ppb).
42. Analytical results from sediment sampling conducted at a location adjacent to the former surface impoundments (location S-12), revealed the presence of VOCs, SVOCs, PCBs, and metals in sediments, including the following (concentration values in parenthesis): Aroclor 1254 (120 ppb), benzo(a)anthracene (360 ppb), benzo(a)pyrene (320 ppb), benzo(g,h,i)perylene (280 ppb), benzo(k)fluoranthene (310 ppb), bis(2-ethylhexyl)phthalate (210 ppb), chlorobenzene (16 ppb), chrysene (410 ppb), fluoranthene (970 ppb), indeno(1,2,3-c,d)pyrene (260 ppb), phenanthrene (540 ppb),

pyrene (850 ppb), and vanadium (17.8 ppb). Concentration values in parenthesis are estimated with the exception of those from chlorobenzene, fluoranthene, chrysene, and vanadium.

43. All of the examples of SVOCs cited above are also known as PAHs with the exception of bis(2-ethylhexyl)phthalate.

- **1998 RCRA Preliminary Assessment/Visual Site Inspection (PA/VSI)**

44. Prior to conducting a VSI at the facility, TechLaw conducted a PA of the available EPA and OEPA file materials regarding past compliance history, evidence of past releases, potential migration pathways, potential for exposure to any released hazardous constituents, closure methods and dates, citizen complaints, manufacturing processes and waste management practices at the Morton facility. The PA conducted by TechLaw documented the following:

- (A) From December 1980 to January 1981, Carstab installed fourteen (14) groundwater monitoring wells for the purpose of conducting a hydrogeologic investigation as requested by OEPA. The results from the Carstab investigation did not provide adequate data to satisfy the OEPA requirements.
- (B) On May 21, 1982, OEPA requested that the former swale area be investigated for the presence of buried drums, buried optical brighteners waste, and any potential groundwater contamination.
- (C) On December 1, 1982, and January 12, 1983, OEPA issued to Carstab the Director's Final Findings and Orders requesting that Carstab complete additional studies to determine the extent of off-site migration of wastes from the facility, including leachate entering Mill Creek, and to identify appropriate remedial measures.

45. On May 12, 1998, TechLaw conducted a VSI at the facility. The purpose of the inspection was to identify and characterize solid waste management units (SWMUs) and areas of concern. A total of eleven SWMUs were identified, including the former surface impoundments (SWMU 1), former neutralization tank (SWMU 2), former drum storage area (SWMU 3), hazardous waste drum storage area (SWMU 4), former sulfide waste treatment tank (SWMU 5), groundwater collection system (SWMU 6), groundwater treatment unit (SWMU 7), satellite waste accumulation areas (SWMU 8), pH control system (SWMU 9), former swale area (SWMU 10) and combined sewer system (SWMU 11).

46. According to a July 8, 1998, PA/VSI Report prepared for EPA by TechLaw: "releases to soil and groundwater are documented at the Former Surface Impoundments (SWMU 1) and the Former Swale Area (SWMU 10), resulting in the designation of a high release potential for these units. The Groundwater Collection System (SWMU 6) and Groundwater Treatment Unit (SWMU 1) were installed to collect and treat contaminated groundwater and prevent off-site migration of contaminants through the shallow aquifer. Thus, although the release potential is high for SWMU 1 and 10, the facility has apparently implemented measures to prevent off-site migration of hazardous constituents through shallow groundwater. The effectiveness of the Groundwater Treatment Unit (SWMU 7) in removing contaminants should be analyzed, however, in order to ensure that the treated water does not pose a further threat of contamination. In addition, since it appears that deeper portions of the aquifer are used for domestic purposes in the vicinity of the Morton facility, potential contaminant migration from the Former Surface Impoundments (SWMU 1) and Former Swale Area (SWMU 10) to the deeper portions of the aquifer should be investigated. Furthermore, it is recommended that sediments in Mill Creek (adjacent to the facility) be investigated to determine the extent of impacts from past contaminated leachate releases associated with the Former Surface Impoundments (SWMU 1)." Also, the report indicates that "The Combined Sewer System (SWMU 11) was not directly observed during the VSI, and the construction and exact location were not confirmed by Morton representatives. Additional information regarding the Combined Sewer System (SWMU 11) should be provided by Morton representatives so that the potential for release from the unit can be determined."

#### **Effects on Human Health or the Environment**

47. The constituents identified as present at the site by the CERCLA inspections, as described above in paragraphs 32- 43 may cause the following effects on human health or the environment:
- (A) Acetone: Dermal absorption and inhalation are the main routes of exposure to acetone. Acute (short-term) exposure can cause dizziness and/or loss of consciousness. Chronic (long-term) exposure may damage the liver and kidneys. Acetone has a slight chronic and acute toxicity to aquatic life.
  - (B) Arsenic: Arsenic is a known carcinogen, and a potential teratogenic agent. Its main path of exposure to humans is through inhalation and dermal absorption. Long term exposure can cause nerve and liver damage, narrowing of the blood vessels, and affect red blood cell production. Arsenic in the presence of acid may release a deadly gas, arsine. Potential health effects from ingestion include skin damage; circulatory system problems, and increased risk of cancer. Arsenic has high acute toxicity to aquatic life, birds, and land animals. It has a low solubility in water and is

persistent in water, with a half-life of 200 days. Arsenic has high chronic toxicity to aquatic life, and is known to bioaccumulate in fish tissues.

- (C) Benzene: Benzene is a possible component of petroleum and grease. It is a carcinogen in humans and possibly a teratogen. Short-term exposures can cause dizziness, convulsions, irregular heartbeat and even death. Long-term exposures can cause aplastic anemia, which can cause death. Benzene has high acute toxicity to aquatic life. Long-term exposures in the environment cause shortened life spans, reproductive problems, and lower fertility. Benzene is a component of petroleum and is used as a solvent.
- (D) Bis(2-ethylhexyl)phthalate: Bis(2-ethylhexyl) phthalate is a carcinogen and a teratogen and may damage the testes. Repeated exposure may affect the kidneys and liver. This chemical has applications in pump operations.
- (E) 2-butanone (methyl ethyl ketone): Acute (short-term) exposure to this chemical, via inhalation, results in irritation to the eyes, nose and throat, and can depress the central nervous system. Limited information is available on the chronic (long-term) effects of methyl ethyl ketone in humans. However, studies in animals have reported effects on the central nervous system, liver, and respiratory system, and impaired fetal development, as well as fetal malformation. Methyl ethyl ketone is used as a solvent.
- (F) Chlorobenzene: This chemical is classified as a human toxicant. Long-term exposure of humans to chlorobenzene affects the central nervous system. Signs of neurotoxicity include numbness, cyanosis, hyperesthesia (increased sensation), and muscle spasms. Chlorobenzene is used as a solvent for paints and as a heat transfer medium.
- (G) 1,2-dichlorobenzene (o-dichlorobenzene): Long-term exposure to this chemical through ingestion can potentially cause damage to the nervous system, liver, kidneys and blood cells. This chemical is used as solvent for waxes, gums, tars, and other petroleum derivatives, and as a degreasing agent and a heat transfer medium.
- (H) 1,4-dichlorobenzene (p-dichlorobenzene): Short-term exposure to this chemical, via inhalation in humans, causes irritation of the skin, throat, and eyes. Long-term inhalation exposure in humans results in effects on the liver, skin, and central nervous system. This chemical is used as an insecticidal fumigant.

- (I) Ethylbenzene: Very high acute exposures can cause trouble breathing, paralysis, and death. There is some evidence to suggest ethylbenzene may damage a developing fetus. High chronic exposure may cause liver damage. Ethylbenzene has a high chronic and acute toxicity to aquatic life. Ethylbenzene is a component of petroleum and is sometimes used as a solvent.
- (J) Nickel: Nickel carbonyl is the most acutely toxic form of nickel in humans, with the lung and the kidney as the target organs. Symptoms such as headache, vomiting, chest pains, dry coughing, and visual disturbances have been reported from acute inhalation exposure in humans. Contact dermatitis, consisting of itching of the fingers, wrists, and forearms, is the most common effect in humans from long-term nickel exposure. Respiratory effects, such as asthma and an increased risk of chronic respiratory infections, have also been reported in humans from inhalation exposure to nickel.
- (K) Polychlorinated Biphenyls (PCBs): Aroclor 1254 is a chlorobiphenyl, one of the primary chemicals in PCBs, named according to the percentage of chlorine in the mixture (54%). Others include aroclor 1242, 1248, and 1260. The main path of exposure to humans is through inhalation and dermal absorption. Short-term exposure to PCBs can damage the liver. Chronic exposures pose cancer risks, possible liver damage, and damage to the nervous system. Dermal and ocular effects, including skin irritation, chloracne, hyperpigmentation and eyelid and conjunctival irritation, have been observed in humans occupationally exposed to aroclor 1254 and other aroclor formulations. Acute toxic effects of PCBs in the environment may include death of animals, birds, or fish. PCBs have high chronic toxicity to aquatic life, and are known to bioaccumulate in fish.
- (L) Polycyclic aromatic hydrocarbons (PAHs): PAHs are a group of over 100 different chemicals that are present in the heavy fraction of petroleum distillate and produced from the incomplete burning of coal, petroleum and other organic substances. Acenaphthene can cause liver and kidney damage at high levels. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenzo(a,h)anthracene and indeno(1,2,3-c,d)pyrene and others are human carcinogens. Carbazole and chrysene are possible human carcinogens. In addition, laboratory mice ingesting benzo(a)pyrene developed birth defects. Acenaphthylene, benzo(a)anthracene, benzo(k)fluoranthene, and phenanthrene may be mutagenic. Carbazole is capable of causing death or permanent injury due to exposures of normal use. It can be incapacitating and poisonous and requires special handling. PAHs tend to combine with dust and are carried

into water, soil and crops. PAHs are often associated with petroleum, coal and coke products.

- (M) Toluene: The main concerns in chronic exposures is possible mutations in living cells, possible damage to a developing fetus, and liver damage. Exposure to this chemical has also been linked to problems in the nervous system, kidney, and circulatory problems. Toluene has been suspected to cause congenital defects in infants born to mothers who were exposed to or who abused toluene during pregnancy. Toluene has caused leaf membrane damage in plants. It may accumulate in fish tissues. Toluene is a component of petroleum and is also used as a solvent.
- (N) Vanadium: In the form of vanadium pentoxide, this chemical is classified as a toxicant and has been associated with respiratory and skin irritation through inhalation and dermal exposure. Laboratory studies in animals have shown the development of histopathologic changes in lungs and decrease in growth rate. Among other manufacturing applications, vanadium pentoxide is used as a developer in photography and in the manufacturing of yellow glass inhibiting ultraviolet light transmission.
- (O) Xylenes: Acute exposure to xylenes can cause nausea and lightheadedness. Xylenes may damage the developing fetus. Chronic effects include bone marrow damage, low blood cell count, liver damage, and kidney damage. Xylene is moderately soluble in water, and its chronic toxic ecological effects may include shortened life span, reproductive problems, and lower fertility. Xylenes are components of petroleum and are also used as a solvent.

#### **IV. CONCLUSIONS OF LAW**

- 48. Respondent's facility is a "facility or site" within the meaning of § 3013(a) of RCRA, 42 U.S.C. § 6934(a).
- 49. Respondent is a "person" as defined in § 1004(15) of RCRA, 42 U.S.C. § 6903(15).
- 50. Respondent is an "owner" and "operator" of the facility within the meaning of § 3013(a) of RCRA, 42 U.S.C. § 6934(a).
- 51. § 1004(27) of RCRA, 42 U.S.C. § 6905(27) defines the term "solid waste" to mean "any garbage, refuse . . . and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations . . ."

52. § 1004(5) of RCRA, 42 U.S.C. § 6903(5), defines the term "hazardous waste" to mean:

a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may-

(A) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

53. § 1004(3) of RCRA, 42 U.S.C. § 6903(3), defines the term "disposal" to mean "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters."

#### **V. FINDING OF SUBSTANTIAL HAZARD**

Upon the basis of the foregoing Findings of Fact, and pursuant to § 3013(a) of RCRA, 42 U.S.C. § 6934(a), EPA makes the following determinations:

54. Hazardous wastes within the meaning of § 1004(5) of RCRA, 42 U.S.C. § 6903(5), are present at the facility and were treated, stored or disposed there.
55. The presence of hazardous wastes at the facility and/or the release of hazardous wastes from the facility may present a substantial hazard to human health or the environment.
56. The action required by this Order are reasonable to ascertain the nature and extent of such hazard.

#### **VI. ORDER**

57. Based on the Findings of Fact, Conclusions of Law and Findings of Substantial Hazard as set forth above, Respondent is hereby ordered, pursuant to § 3013 of RCRA, 42 U.S.C. § 6934, to submit three (3) copies of a written proposal to EPA within thirty (30) days from the issuance of this Order, for carrying out monitoring, testing, analysis, and reporting in order to ascertain the nature and extent of the hazard posed by the hazardous wastes that are present at or that may have been released from the study areas at the Respondent's facility. The facility's study areas are identified and described in Section III of this Order under "Description of Study Areas". Respondent is hereby ordered to implement such proposal once approved, or modified and approved, by EPA. Respondent is hereby

ordered to complete implementation of such proposal by June 1, 2002. All work undertaken pursuant to this Order shall be performed in a manner consistent with "Interim Final RCRA Facility Investigation (RFI) Guidance," Volumes I-IV, EPA/530/SW-89-031, May 1989, and all other applicable EPA guidance. Applicable guidance may include, but is not limited to, documents listed in Attachment 2: References. Respondent's written proposal shall be specific and shall include, but is not limited to, the following:

- (A) a work plan, including schedule and proposal for progress reports, to evaluate (based on field data, tests, and cores ) the hydrogeologic conditions at the facility and Mill Creek, including the determination and description of: (i) regional and facility specific stratigraphy and distribution of hydrogeologic units; (ii) regional and facility specific groundwater flow patterns, recharge and discharge areas, and seasonal variations in the groundwater flow regime; (iii) characteristics of hydrogeologic units, including hydraulic conductivity and hydraulic interconnections between saturated zones; (iv) hydrogeologic cross-sections showing the extent of hydrogeologic units in the vicinity of the facility; (v) water-level contours and/or potentiometric maps; (vi) the direction and velocity for the vertical and horizontal components of flow at the facility, (vii) man-made influences that may affect the hydrogeology of the facility such as the groundwater collection system at the site (i.e., the system's design, operation, and objectives).
- (B) a work plan, including schedule and proposal for progress reports, to characterize the location, design, and operation of the combined sewer system.
- (C) a soil sampling and analysis work plan, including schedule and proposal for progress reports, to collect and analyze representative soil samples to determine the nature and extent of any soil contamination in and around the former surface impoundments, the former neutralization tank, the former drum storage area, the former sulfide waste treatment tank, the former swale area and the combined sewer system. The plan shall include the number, location, depth of samples, the analysis parameters, and quality assurance measures.
- (D) a sediment sampling and analysis work plan, including schedule and proposal for progress reports, to collect and analyze representative sediment samples to determine the nature and extent of contamination in sediments in Mill Creek adjacent to and downstream from the former surface impoundments, the former neutralization tank, the former drum storage area, the former sulfide waste treatment tank, the former swale



area, and the combined sewer system. The plan shall include the number, location, depth of samples, the analysis parameters, and quality assurance measures.

- (E) a leachate and run-off sampling and analysis work plan, including schedule and proposal for progress reports, to determine the nature and extent of contaminated leachate and run-off flowing into Mill Creek from portions of the facility adjacent to and downstream from the former surface impoundments, the former neutralization tank, the former drum storage area, the former sulfide waste treatment tank, the former swale area and the combined sewer system. The plan shall include the number, location, depth of samples, the analysis parameters, and quality assurance measures.
- (F) a groundwater sampling and analysis work plan, including schedule and proposal for progress reports, to characterize the groundwater quality and the extent of any groundwater contamination, both vertically and horizontally, which may exist in, around or on the former surface impoundments, the former neutralization tank, the former drum storage area, the former sulfide waste treatment tank, the former swale area and the combined sewer system. The plan shall include the number, location and frequency of samples to be taken, the analysis parameters, and quality assurance measures.

- 58. Each of the required work plans described above shall be designed to define the nature, location, extent, direction and rate of movement of any hazardous wastes or hazardous waste constituents which are present at or have been released from the facility. Each work plan shall document the procedures the Respondent shall use to conduct the investigations necessary: (1) to characterize the potential pathways of migration of hazardous waste and hazardous waste constituents; (2) characterize the sources of hazardous waste and/or hazardous waste constituent contamination; (3) define the degree and extent of hazardous waste and/or hazardous constituent contamination; and (4) identify actual or potential receptors.
- 59. Respondent shall insure that laboratories used by Respondent for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be proposed, Respondent shall submit all protocols to be used for analysis to EPA at least thirty (30) calendar days prior to the commencement of the analyses. Respondent shall also ensure that laboratories used by

Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA.

60. Based on work performed under the work plans described above, EPA may determine that additional investigation, analysis, and/or reporting is necessary to meet the purposes of this Order. If EPA determines that Respondent shall perform additional work, EPA will notify Respondent in writing and specify the basis for its determination that additional work is necessary. Within fifteen (15) days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a work plan for the additional work. EPA will specify the contents of such work plan. Such work plan shall be submitted by Respondent within thirty (30) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA.
61. The written proposal and all reports or documents required to be submitted under this Order shall be mailed to:

Mirtha Capiro, Project Coordinator  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard, DE-9J  
Chicago, IL 60604

#### **VII. SUBMISSIONS / AGENCY REVIEW**

62. EPA will review all plans, reports, or other submittals required under this Order. EPA may: (a) approve the submission, (b) approve the submission with modifications, (c) disapprove the submission and direct Respondent to re-submit the document after incorporating EPA's comments, or (d) disapprove the submission and assume responsibility for performing all or any part of the work. As used in this Order, the terms "approval by EPA," "EPA approval," or a similar term means the action described in (a) or (b) of this paragraph.
63. Prior to approval in writing, or approval with modifications in writing, no plan, report, or other submittal shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute approval, nor shall any oral approval or oral assurance of approval be considered binding.
64. Upon receipt of a notice of disapproval in paragraph 62 above or a request for a modification, Respondent shall, within fifteen (15) days, or such longer time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, schedule, other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondent shall proceed, at the

direction of EPA, to take any action required by any non-deficient portion of the submission.

65. Within ten (10) days following EPA approval, or approval with modifications, of the a plan, Respondent shall implement the approved document.
66. All plans, reports, and/or other submittals required by this Order are, upon approval or approval with modifications by EPA, incorporated into this Order as if fully set forth in text herein. Any noncompliance with such EPA-approved plans, reports, specifications, schedules, and attachments shall be noncompliance with this Order. Oral advice or approvals given by EPA representatives shall not relieve Respondent of its obligation to obtain any formal, written approvals required by this Order.
67. In all instances which this Order requires written submissions to EPA, each submission must be accompanied by the following certification signed by a "responsible official":

I certify that the information contained in or accompanying this submission is true, accurate, and complete.

For the purpose of this certification, a "responsible official" means a person in charge of a principal facility function, or any other person who performs similar decision-making functions for the facility.

#### **VIII. PROJECT COORDINATORS**

68. EPA hereby designates as its Project Coordinator:

Mirtha Capiro  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard, DE-9J  
Chicago, IL 60604

69. Within ten (10) calendar days of Respondent's receipt of this Order, Respondent shall designate a Project Coordinator and submit the designated Project Coordinator's name, address, and telephone number in writing to EPA.
70. Each Project Coordinator shall, on behalf of the party that designated that Project Coordinator, oversee the implementation of this Order and function as the principal project contact.
71. Respondent shall provide EPA with a written notice of any change in its Project Coordinator. Such notice shall be provided at least seven (7) calendar days prior to the change in Project Coordinator.

## **IX. THREATS TO PUBLIC HEALTH OR THE ENVIRONMENT**

72. If EPA's Project Coordinator determines that activities in compliance or noncompliance with this Order have caused or may cause a release of hazardous waste or waste constituents, or a threat to the public health or to the environment, EPA may require that Respondent stop further implementation of this Order for such a period of time as may be needed to abate any such release or threat and/or undertake any action which EPA determines is necessary to abate such release or threat; and may require Respondent to resume implementation of this Order.

## **X. SAMPLING AND DOCUMENT AVAILABILITY**

73. The Respondent shall submit to EPA, upon request, the results of all sampling and/or tests or other data generated by, or on behalf of, the Respondent in implementing the requirements of this Order.

## **XI. ACCESS**

74. Respondent shall provide access at all reasonable times to the facility and facility property and to all records and documentation relating to conditions at the facility and the activities conducted pursuant to this Order to EPA and its employees, contractors, agents, consultants, and representatives. These individuals shall be permitted to move freely at the facility in order to conduct activities which EPA determines to be necessary.
75. To the extent that activities required by this Order, or by any approved work plans prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent will use its best efforts to obtain site access agreements in a timely manner from the present owners of such property. Best efforts as used in this paragraph shall include the payment of reasonable compensation in consideration of granting access. Respondent shall provide EPA's Project Coordinator with a copy of any access agreements.
76. Nothing in this Order limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including RCRA and CERCLA.
77. Respondent shall notify EPA in writing at least ten (10) calendar days before engaging in any field activities, including but not limited to sampling, well-drilling, and installation of equipment. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split and/or duplicate samples of all samples collected by Respondent pursuant to this Order.

## **XII. RECORD PRESERVATION**

78. Respondent shall retain, during the pendency of this Order and for a minimum of five (5) years after its termination, a copy of all data, records, and documents now in its possession or control, or in the possession or control of its contractors, subcontractors, representatives, or which come into the possession or control of the Respondent, its contractors, subcontractors, or representatives, which relate in any way to this Order. Respondent shall notify EPA, in writing, at least ninety (90) days in advance of the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Such written notification shall reference the caption, docket number and date of issuance of this Order and shall be addressed to:

Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
EPA Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

In addition, Respondent shall provide data, records and documents retained under this Section at any time before the expiration of the five year period at the written request of EPA.

## **XIII. INFORMATION SUBMITTED TO EPA**

79. Any information that Respondent is required to provide or maintain pursuant to this Order is not subject to the Paperwork Reduction Act of 1995, 44 U.S.C. § 3501 et seq.
80. Respondent may assert a business confidentiality claim in the manner described in 40 C.F.R. § 2.203(b) covering all or part of any information submitted to EPA pursuant to this Order. Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information submitted for which Respondent has asserted a claim of confidentiality as specified above shall be disclosed by EPA only to the extent and manner permitted by 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to the Respondent.

## **XIV. RESERVATION OF RIGHTS**

81. EPA expressly reserves all statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Order, specifically including, without

limitation, the right to commence a civil action against Respondent seeking an order requiring compliance with this Order and/or the assessment of penalties under § 3013(e) of RCRA, 42 U.S.C. § 6934(e), and all rights EPA has pursuant to RCRA § 3013(d) to conduct monitoring, testing and sampling at the facility, and to analyze any samples taken, and to seek reimbursement from Respondent for the costs of such activity. This Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, defenses, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, the Safe Drinking Water Act (SDWA), the Clean Air Act (CAA), or any other statutory, regulatory, or common law enforcement authority of the United States.

82. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Order, and to order that Respondent perform additional tasks.

#### **XV. OTHER APPLICABLE LAWS**

83. All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable federal, state, and local laws, regulations, permits, and ordinances.
84. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA, or any other applicable federal, state, or local laws, regulations, permits, and ordinances.
85. This Order is not and shall not be interpreted to be a permit, or as a ruling or a determination of any issue related to a permit, under federal, state or local law; nor shall this Order in any way affect Respondent's obligation, if any, to secure such a permit; nor shall this Order be interpreted in any way to affect or waive any of the conditions or requirements that may be imposed as conditions of such permit or of Respondent's right to appeal any conditions of such permit. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

#### **XVI. OTHER CLAIMS**

86. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity, against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous waste constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or migrating from the facility.

87. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts of omissions of Respondent or its agents, contractors, subcontractors or other representatives.
88. Neither the United States nor EPA shall be a party or be held out as a party to any contact entered into by the Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out activities pursuant to this Order.

#### **XVII. SUBSEQUENT MODIFICATION OF ORDER**

89. Except as provided in paragraphs 72 and 90, this Order may only be modified by written amendment signed by the Branch Chief or the Regional Administrator, EPA, Region 5.
90. Modifications in any schedule adopted pursuant to this Order may be made in writing by EPA's Project Coordinator.
91. No informal advice, guidance, suggestions, or comments by EPA shall be construed to modify the requirements of this Order. Routine communications exchanged verbally, in person or by telephone, between the parties to facilitate the orderly conduct of work contemplated by this Order shall not alter or waive any rights and/or obligations of the parties under this Order.

#### **XVIII. STATEMENT OF SEVERABILITY**

92. If any provision or authority of this Order, or the application of this Order to any party or circumstances, is held by any judicial or administrative authority to be invalid, the application of such provisions to other Parties or circumstances and the remainder of the Order shall not be affected thereby.

#### **XIX. TERMINATION AND SATISFACTION**

93. Respondent may seek termination of this Order by submitting to EPA a written document which indicates Respondent's compliance with all requirements of this Order, and the associated dates of approval correspondence from EPA.
94. The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated to the satisfaction of EPA that the terms of the Order, including any additional tasks determined by EPA to be required pursuant to this Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligations to comply with any continuing obligations

hereunder, including without limitation, Section XII (Record Preservation), XIV (Reservation of Rights), and XV (Other Applicable Laws).

## **XX. OPPORTUNITY TO CONFER**

95. In accordance with § 3013(c) of RCRA, 42 U.S.C. § 6934(c), Respondent or its representative may confer in person or by telephone with EPA regarding this Order. The opportunity to confer with EPA may be pursued by the Respondent before the proposal described in paragraph 57 from Section VI of this Order is due within thirty (30) days after the issuance of this Order. At such conference, Respondent may discuss the following with EPA: the Order, its applicability to the Respondent, the correctness of any factual determinations upon which the Order is based, the appropriateness of any action which Respondent is hereby ordered to undertake, and any other relevant and material issue.
96. The scheduling of a conference with EPA does not relieve Respondent of the obligation to submit the written proposal required under Section VI of this Order within thirty (30) days of the date of issuance of this Order, or to implement the proposal once approved, or approved with modifications, by EPA.
97. At the conference described above, Respondent may appear in person and/or by attorney or other representative. Additionally, Respondent may submit written comments to the EPA Project Coordinator addressing issues that could be raised in the conference within the time frames set for conducting such conference.
98. Any request for a conference with EPA, and other questions regarding this Order should be directed to:

Thomas Nash  
Associate Regional Counsel  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard, C-14J  
Chicago, IL 60604  
(312) 886-0552

If Respondent fails to request a conference within the time periods provided in this Section, or fails to agree upon a date to schedule such conference within the time periods provided in this section, Respondent shall be deemed to have waived its right under § 3013 of RCRA to confer with EPA regarding this Order.



**XXI. POTENTIAL CONSEQUENCES OF FAILURE TO COMPLY**

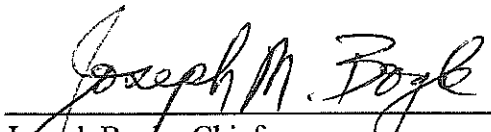
99. In the event Respondent fails or refuses to comply with the terms and provisions of this Order, EPA may commence a civil action in accordance with § 3013(e) of RCRA, 42 U.S.C. § 6934(e), to require compliance with such Order and to assess a civil penalty (consistent with 40 C.F.R. Part 19) not to exceed \$5,500 for each day during which such failure or refusal occurs.
100. If EPA determines that Respondent is not able to conduct the activities required by this Order in a satisfactory manner, or if actions carried out are deemed unsatisfactory, then EPA or its representatives may conduct such actions deemed reasonable by EPA to ascertain the nature and extent of the hazard at the property and/or facility of Respondent. EPA or its representatives may then order Respondent to reimburse the costs of such activity pursuant to § 3013(d) of RCRA, 42 U.S.C. § 6934(d).

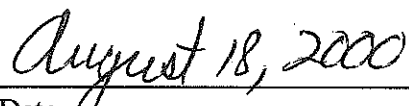
**XXII. EFFECTIVE DATE/DATE OF ISSUANCE**

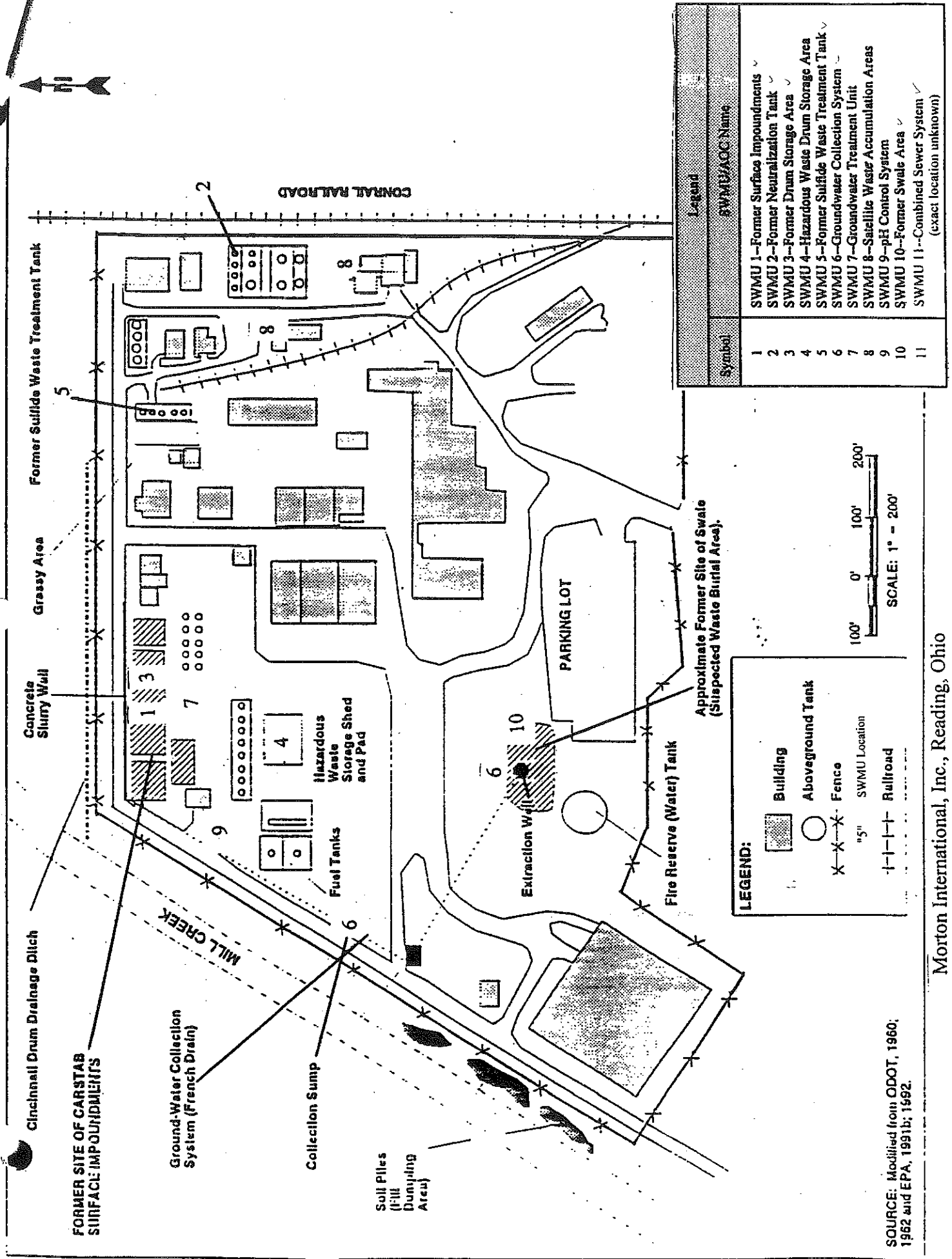
101. The effective date of this Order is the date it is signed by the Branch Chief. The date of issuance of this Order shall be the same date as the effective date.

**IN THE MATTER OF MORTON INTERNATIONAL, INC.  
2000 West Street  
Reading, Ohio 45215-3431**

**IT IS SO ORDERED**

  
\_\_\_\_\_  
Joseph Boyle, Chief  
Enforcement & Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency/ Region 5

  
\_\_\_\_\_  
Date



ATTACHMENT 2

REFERENCES  
MORTON INTERNATIONAL, INC.  
READING, OHIO  
U.S. EPA ID No. OHD 000 724 138

The following list identifies guidance documents, in addition to those documents already referenced in the Order, and other information which may be useful to Morton International, Inc. in implementing the Order. This list is not exhaustive in that it does not include every guidance document applicable to work performed under a RCRA §3013 Administrative Order.

*"Health and Safety Requirements of Employees Employed in Field Activities,"* EPA Order 1440.2, July 12, 1981.

*"RCRA Ground-Water Monitoring Technical Enforcement Guidance Document (TEGD),"* OSWER Directive 9950.1, September 1986.

*"RCRA Facility Assessment (RFA) Guidance,"* EPA/530/SW-86/053, October 1986.

*"Data Quality Objectives for Remedial Response Activities,"* EPA/540/G-87/003 & 004, OSWER Directive 9335.0-7B, March 1987.

*"Alternate Concentration Limit Guidance, Part 1: ACL Policy and Information Requirements,"* Interim Final, OSWER Directive 9481.00-6C, July 1987.

*"A Compendium of Superfund Field Operations Methods,"* Two Volumes, EPA/540/P-87/001a&b, OSWER Directive 9355.0-14, August 1987.

*"Technology Screening Guide for Treatment of CERCLA Soils and Sludges,"* EPA/540/2-88/004, September 1988.

*"Ground-Water Modeling: An Overview and Status Report,"* EPA/600/2-89/028, December 1988.

*"Risk Assessment Guidance for Superfund, Volume II: Environmental Evaluation Manual,"* Interim Final, EPA/540/1-89/001, March 1989.

*"Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference Document,"* EPA 600/3-89/013, March 1989.

*"Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,"* Interim Final, EPA/530/SW-89/026, April 1989.

*"Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells,"* EPA/600/4-89/034, April 1989.

*"Interim Final RCRA Facility Investigation (RFI) Guidance,"* Volumes I-IV, EPA/530/SW-89-031, May 1989.

*"Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A),"* Interim Final, EPA/540/1-89/002, December 1989

*"Air/Superfund National Technical Guidance Study Series,"* Volumes I-IV, EPA 450/1-89-001,002,003,004 (1989 and 1990).

*"Framework for Ecological Risk Assessment,"* EPA/630/R-92/001, February 1991.

*"Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors,"* OSWER Directive 9285.6-03, March 25, 1991.

*"Handbook: Ground Water,"* Volumes I and II, EPA/625/6-90/016 (a&b), September 1990 and July 1991.

*"Characterizing Heterogeneous Wastes: Methods and Recommendations,"* EPA/600/R-92/033, Feb. 1992.

*"Final Guidance for Data Useability in Risk Assessment,"* (Parts A & B), OSWER Directive 9285.7-09A, April 1992.

*"Handbook of RCRA Ground-Water Monitoring Constituents: Chemical and Physical Properties,"* EPA/530/R-92/022, September 1992.

*"Ground-Water Monitoring: Draft Technical Guidance,"* EPA/530-R-93-001, November 1992.

*"Statistical Training Course for Ground-Water Monitoring Data Analysis,"* EPA/530/R-93/003, 1992.

*"Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide,"* EPA/625/R-93/003b, May 1993.

*"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,"* SW-846, Third Edition as amended by Update III or latest, U.S. EPA, June 1997.

*"Standard Guide for Risk Based Corrective Action Applied to Petroleum Release Sites,"* ASTM E-1739-95, November 1995. (As approved by Region 5 guidance policy)

*"Conducting Risk-Based Corrective Action for Federally-Regulated UST Petroleum Releases,"* U.S. EPA, Region 5, December 7, 1995.

*"Sitting at the RCRA Data Quality Level Table, Update 1,"* U.S. EPA, Region 5, Memorandum, December 14, 1995.

*"Soil Screening Guidance: Users Guide,"* OSWER Publication 9355.4-23, April 1996.

*"Soil Screening Guidance: Technical Background Document,"* EPA/540/R-95/128, May 1996.

*"Region 5 Ecological Data Quality Levels,"* Final Report, August 26, 1996.

*"EPA's Proposed Guidelines for Ecological Risk Assessment,"* 61 Fed. Reg. 47552, September 9, 1996. (Note: Final document to be released in early-1998.)

*"Ecological Data Quality Levels, RCRA Appendix IX Hazardous Constituents,"* U.S. EPA, Region 5, Draft Report, August 18, 1997.



# **REGION 5 CONCURRENCE SHEET (ORC)**

**SUBJECT:** RCRA Section 3008(h) Order on Consent  
Morton International, Inc. U.S. EPA ID NO. 000724138

**CONTROL NO.** (if applicable): \_\_\_\_\_

Originator	(Tom Nash)	)	TWN	Date	3/23/00
Section Chief (if applicable)	(Rett Nelson)	)	TWN	Date	3/23/00
Branch Chief (if applicable)	(Smith/Cohen)	)		Date	
Deputy (if applicable)	(Frey)	)		Date	
Regional Counsel	(Ginsberg)	)		Date	

**(PLEASE INDICATE NAME OF APPROPRIATE DIVISION(S) WHERE CONCURRENT SIGNOFF IS NECESSARY)**

**NAME OF DIVISION** WPTD / ECAB / CA Section

Assigned Staff Person	(MIRTHA CAPRIO)	)	MC	Date	3/24/00
Division Director	Branch Chief (Joseph Boyle)	)	JB	Date	3-27-2000
Other Section Chief	(George Hampel)	)	GH	Date	3/24/00

**NAME OF DIVISION** \_\_\_\_\_

Assigned Staff Person	(	)	_____	Date	_____
Division Director	(	)	_____	Date	_____
Other	(	)	_____	Date	_____

## **OFFICE OF THE REGIONAL ADMINISTRATOR**

Deputy Regional Administrator	( Ullrich	)	_____	Date	_____
Regional Administrator	( Lyons	)	_____	Date	_____
Other (if applicable)	(	)	_____	Date	_____
Other (if applicable)	(	)	_____	Date	_____

A White House Executive Memorandum dated June 1, 1998, mandates that ".....The Federal Government's writing must be in plain language." This requirement became effective January 1, 1999. Originator and first level supervisor are responsible for assuring that documents are in plain language. All other reviewers should consider plain language in their reviews. (See plain language checklist of reverse side of this sheet.)

**COMMENTS:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**RETURN TO:** \_\_\_\_\_

## Plain Language Checklist

*Write in the active voice. When you use the active voice, the subject of the sentence acts: "EPA issued the permit to X." When you use the passive voice, the subject of the sentence is acted upon: "The permit was issued to X." If you can ask "By whom?" or "By what?" after the verb, the verb is in the passive voice. A passive verb has a form of the verb "to be" (am, is, are, was, were, be, being, been) plus a main verb usually ending in "en" or "ed."*

*Use action verbs. Use base verbs instead of nouns derived from verbs.*

<i>Don't Say</i>	<i>Say</i>	<i>Don't Say</i>	<i>Say</i>
<i>is applicable to</i>	<i>applies to</i>	<i>make payment</i>	<i>pay</i>
<i>give consideration to</i>	<i>consider</i>	<i>take action</i>	<i>act</i>

*Use personal pronouns to represent the reader and to refer to EPA. For example, "The United States Environmental Protection Agency (EPA, we) is issuing an order to X (you, your). We are offering you..."*

*Write short sentences to aid comprehension. Put one main thought in most sentences. Divide a long sentence into two or three short sentences. Remove all unnecessary words. If there are several conditions or subordinate provisions, make a list.*

*Omit surplus words and redundancies. Question the need for ~~each and every~~ word.*

<i>Don't Say</i>	<i>Say</i>	<i>Redundancies</i>
<i>for the period of</i>	<i>for</i>	<i>true and correct</i>
<i>in order to</i>	<i>to</i>	<i>cease and desist</i>
<i>in the event that</i>	<i>if</i>	<i>order and direct</i>

*Place words carefully to reduce ambiguity. Keep subjects and objects close to verbs. Put modifying phrases and words such as "only" and "always" next to the word they modify. She only said that he hired her." She said that only he hired her. She said that he hired only her.*

*Be consistent. Don't use different words to refer to the same thing (car, vehicle, automobile).*

*Limit your use of abbreviations and capital letters. Use abbreviations only to refer to terms that are central to the document. Do not abbreviate terms that you only use a few times. Use capital letters to begin sentences and proper names and for headings. You should reconsider all other uses.*



MAR 28 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Glenn E. Schaaf, Manager  
Health, Safety & Environmental  
Morton International, Inc.  
2000 West Street  
Reading, Ohio 45215-3431

Re: RCRA Section 3008(h) Order on Consent  
Morton International, Inc.  
U.S. EPA ID No. 000 724 138

Dear Mr. Schaaf:

As Mirtha Capiro indicated to you during a meeting on November 4, 1999, the Morton International, Inc. (Morton), manufacturing plant in Reading, Ohio, is one of the hazardous waste facilities designated by U.S. EPA as a high priority for corrective action under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901-6992k. We have determined that Morton must carry out corrective actions at its Reading facility to address documented releases of hazardous wastes or hazardous constituents to soils, air and ground water and to protect human health and the environment.

We intend to issue an order to you under section 3008(h) of RCRA, 42 U.S.C. § 6928(h). This order will require you to carry out corrective actions to stabilize the migration of contaminated groundwater at or from the facility and control significant human exposures within a period of approximately two years. In addition, the order will require that Morton implement final corrective measures for the Reading facility.

We have enclosed a draft of an Administrative Order on Consent which we propose to issue. Please review this document carefully and note your comments and questions in detail.

We wish to resolve this matter expeditiously. Thus, we will provide Morton 60 days from receipt of this letter to review the order and agree to its terms. If you do not agree to the terms of

this order within 60 days, we may issue an order unilaterally.

Please contact Mirtha Capiro within seven days of your receipt of this letter to determine a date for an initial meeting. This meeting should occur within 21 days of your receipt of this letter. You should prepare an agenda for the meeting and submit the agenda to Ms. Capiro at least five days prior to the meeting. Ms. Capiro can be reached at:

Ms. Mirtha Capiro  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency  
Region 5 (DE-9J)  
77 West Jackson Street  
Chicago, Illinois 60604-3590  
(312) 886-7567 (voice)  
(312) 353-4342 (fax)  
email: [capiro.mirtha@epa.gov](mailto:capiro.mirtha@epa.gov)

We appreciate your prompt attention to this matter.

Sincerely yours,

Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

Enclosure

cc: Harold O'Connell, OEPA  
Amy F. Bohler, OEPA

CONCURRENCE SIGN-OFF FOR THE OFFICE OF REGIONAL COUNSEL									
	Aut.	Sec. Secy.	Sec. Chief	Br. Secy.	Branch Chief	Cheryl/ Darlene	Dep. Reg. Coun	Reg. Coun	Other
Init	EW	Y.O	TW		STB				
Date	3/23/00	3/23/00	3/23/00		3-27-2000				

Disk Information \_\_\_\_\_

MC  
3/24/00  
SH  
3/24/00

bcc: Mirtha Capiro  
Thomas C. Nash, C-14J





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

MAR 23 2000

REPLY TO THE ATTENTION OF

DE-9J

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Glenn E. Schaaf, Manager  
Health, Safety & Environmental  
Morton International, Inc.  
2000 West Street  
Reading, Ohio 45215-3431

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Morton International, Inc.  
U.S. EPA ID No. 000 724 138

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We intend to issue an order to you under section 3008(h) of RCRA, 42 U.S.C. § 6928(h). This order will require you to carry out corrective actions to stabilize the migration of contaminated groundwater at or from the facility and control significant human exposures within a period of approximately two years. In addition, the order will require that Morton implement final corrective measures for the Reading facility.

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We wish to resolve this matter expeditiously. Thus, we will provide Morton 60 days from receipt of this letter to review the order and agree to its terms. If you do not agree to the terms of

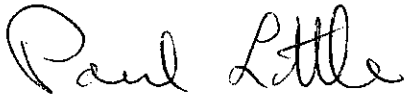
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Ms. Mirtha Capiro  
Enforcement and Compliance Assurance Branch  
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77 West Jackson Street  
Chicago, Illinois 60604-3590  
(312) 886-7567 (voice)  
(312) 353-4342 (fax)  
email: [capiro.mirtha@epa.gov](mailto:capiro.mirtha@epa.gov)

We appreciate your prompt attention to this matter.

Sincerely yours,



*per* Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division

Enclosure

cc: Harold O'Connell, OEPA  
Amy F. Bohler, OEPA

bcc: Mirtha Capiro  
Thomas C. Nash, C-14J

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

IN THE MATTER OF:	)	ADMINISTRATIVE ORDER ON CONSENT
	)	
Morton International, Inc.	)	U.S. EPA Docket No:
2000 West Street	)	
Reading, Ohio 45215-3431	)	
	)	
EPA ID#: OHD 724 138	)	Proceeding under Section 3008(h) of the
	)	Resource Conservation and Recovery Act,
RESPONDENT	)	as amended, 42 U.S.C. § 6928(h).
_____	)	

**I. JURISDICTION**

1. The Administrator of the United States Environmental Protection Agency ("U.S. EPA") is issuing this Administrative Order on Consent ("Order") to Morton International, Inc. ("Morton") under Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6928(h). The Administrator has delegated the authority to issue orders under Section 3008(h) of RCRA to the Chief, Enforcement and Compliance Assurance Branch; Waste, Pesticides and Toxics Division; U.S. EPA Region 5.

2. Morton owns and operates a chemical manufacturing facility at 2000 West Street, Reading, Ohio (the "facility"). Morton's facility produces additives for the plastic and petroleum industries. In addition, Morton's facility supplies a minor portion of chemical products to the textile, paper and other miscellaneous industries. The facility is adjacent to the east bank of Mill Creek.

3. Morton agrees not to contest U.S. EPA's jurisdiction to issue this Order, to enforce its terms, or to impose sanctions for violations of the Order.

4. Morton waives any rights to request a hearing on this matter pursuant to Section 3008(b) of RCRA and 40 C.F.R. Part 24, and consents to the issuance of this Order without a hearing under Section 3008(b) of RCRA as a Consent Order issued pursuant to Section 3008(h) of RCRA.

**II. DEFINITIONS**

5. This Order incorporates the definitions in RCRA, 42 U.S.C. §§ 6901 - 6922k, and the regulations promulgated under RCRA unless otherwise specified.



### **III. PARTIES BOUND**

6. This Order applies to and binds U.S. EPA, Morton and its agents, successors, assigns, trustees, receivers, and all persons, including but not limited to contractors and consultants, acting on behalf of Morton. Morton will be responsible for and liable for any violations of this Order, regardless of Morton's use of employees, agents, contractors, or consultants to perform work required by this Order.

7. No change in ownership or corporate or partnership status relating to the facility will alter Morton's obligations under this Order. Any conveyance of title, easement, or other interest in the facility, or a portion of the facility, will not affect Morton's obligations under this Order. Morton will give written notice of this Order to any successor in interest prior to transferring ownership or operation of the facility or a portion thereof and will notify U.S. EPA in writing within five days of the transfer. This written notice will describe how Morton has assured that, despite the transfer, all institutional controls required now or in the future for the facility will be implemented and maintained. This paragraph will not apply if U.S. EPA and Morton agree that this Order has terminated as to the facility or any relevant portion of the facility.

### **IV. DETERMINATIONS**

8. After consideration of the Administrative Record, the Chief, Enforcement and Compliance Assurance Branch; Waste, Pesticides and Toxics Division; U.S. EPA Region 5 has made the following conclusions of law and determinations:

- a. Morton is a "person" within the meaning of Section 1004(15) of RCRA.
- b. Morton is the owner or operator of a facility that has operated under interim status subject to Section 3005(e) of RCRA.
- c. Certain wastes and constituents found at the facility are hazardous wastes and/or hazardous constituents pursuant to Section 1004(5), 3001 of RCRA and 40 C.F.R. Part 261.
- d. There is or has been a release of hazardous wastes or hazardous constituents into the environment from the facility.
- e. The actions required by this Order are necessary to protect human health or the environment.

### **V. PROJECT MANAGER**

9. U.S. EPA and Morton must each designate a Project Manager and notify each other in writing of the Project Manager selected within 14 days of the effective date of this Order. Each

Project Manager will be responsible for overseeing the implementation of this project. The parties must provide prompt written notice whenever they change Project Managers.

## **VI. WORK TO BE PERFORMED**

10. Pursuant to Section 3008(h) of RCRA, Morton agrees to and is hereby ordered to perform the actions specified in this section, in the manner and by the dates specified here. Morton represents that it has the technical and financial ability to carry out corrective action at the facility. Morton must perform the work undertaken pursuant to this Order in compliance with RCRA and other applicable federal and state laws and their implementing regulations, and consistent with all relevant U.S. EPA guidance documents as appropriate to the facility. This guidance includes, but is not limited to, the Documentation of Environmental Indicator Determination Guidance, and relevant portions of the Model Scopes of Work for RCRA Corrective Action and of U.S. EPA's risk assessment guidance.

11. Morton must identify and define the nature and extent of releases of hazardous waste and hazardous constituents at or from the facility. This includes:

- a. Provide to U.S. EPA, within 60 days after the effective date of this Order, a brief Current Conditions Report that includes any recent sampling data from the facility, and a summary of the historic operations and physical setting of the facility. The Current Conditions Report must describe, at a minimum, conditions at all locations specified in the Preliminary Assessment and Visual Site Inspection Report for Morton International, Inc. Dated July 8, 1998. The Current Conditions Report must also include any other past or present locations at the facility for which Morton knows of past treatment, storage, or disposal of hazardous waste or hazardous constituents.
- b. Perform an investigation to identify the nature and extent of any releases of hazardous waste or hazardous constituents at or from the facility which may pose an unacceptable risk to human health and the environment, and provide a report to U.S. EPA. The report must also describe the nature and extent of any releases of hazardous waste and hazardous constituents at or from the facility which do not pose an unacceptable risk to human health and the environment, and provide the basis for those conclusions, including an evaluation of the risks. Morton may prepare and submit the report in two phases to provide timely support for the demonstrations described in paragraph 13, below, and for the determinations and proposal described in paragraph 15, below.

12. Morton may proceed with remedial actions to limit site investigation or risk assessment activities to complete the work as defined in paragraphs 13 through 15, below.

13. Morton must demonstrate by April 1, 2002, through submitting an Environmental

Indicators Report and by performing any other necessary activities, consistent with this Section, that:

- a. All current human exposures to contamination at or from the facility are under control. That is, significant or unacceptable exposures do not exist for all media known or reasonably suspected to be contaminated with hazardous wastes or hazardous constituents above risk-based levels, for which there are complete pathways between contamination and human receptors.
- b. Migration of contaminated groundwater at or from the facility is stabilized. That is, the migration of all groundwater known or reasonably suspected to be contaminated with hazardous wastes or hazardous constituents above acceptable levels is stabilized to remain within any existing areas of contamination as defined by monitoring locations designated at the time of the demonstration. In addition, any discharge of groundwater to surface water is either insignificant or currently acceptable according to an appropriate interim assessment. Morton must collect monitoring and measurement data in the future as necessary to verify that migration of any contaminated groundwater is stabilized.

14. To prepare for and provide the demonstrations required by paragraph 13, above, Morton must:

- a. Determine appropriate risk screening criteria under current use scenarios and provide the basis and justification for the use of these criteria.
- b. Determine any current unacceptable risks to human health and the environment and describe why other identified risks are acceptable.
- c. Control any unacceptable current human exposures that Morton identifies. This includes performing any corrective actions or other response measures ("corrective measures") necessary to control current human exposures to contamination to within acceptable risk levels.
- d. Stabilize the migration of contaminated groundwater. This includes implementing any corrective measures necessary to stabilize the migration of contaminated groundwater.
- e. Conduct groundwater monitoring to confirm that any contaminated groundwater remains within the original area of contamination.
- f. Prepare a report, either prior to or as part of the Environmental Indicators Report, that describes and justifies any interim actions performed to meet the requirements of this Section, including sampling documentation, construction

completion documentation and/or confirmatory sampling results.

15. Morton must propose to U.S. EPA by June 1, 2002, final corrective measures necessary to protect human health and the environment from all current and future unacceptable risks due to releases of hazardous waste or hazardous constituents at or from the facility (the "Final Corrective Measures Proposal"). The proposal must describe all corrective measures implemented at the facility since the effective date of this Order. It must also include a description of all other final corrective measures that Morton evaluated, a detailed explanation of why Morton preferred the proposed final corrective measures, and cost estimates for the final corrective measures evaluated. The proposal must also include a detailed schedule to construct and implement the final corrective measures, and to submit a Final Remedy Construction Completion Report. Morton must complete as much of the initial construction work as practicable within one year after U.S. EPA selects the final corrective measures. Morton must complete all final corrective measures within a reasonable period of time to protect human health and the environment.

16. As part of developing its proposal, Morton must propose appropriate risk screening criteria, cleanup objectives, and points of compliance under current and reasonably expected future land use scenarios and provide the basis and justification for these decisions.

17. U.S. EPA may request supplemental information from Morton if U.S. EPA determines that the proposal and supporting information do not provide an adequate basis to select final corrective measures that will protect human health and the environment from the release of hazardous waste and hazardous constituents at or from the facility. Morton must provide timely any supplemental information that U.S. EPA requests in writing.

18. U.S. EPA will provide the public with an opportunity to review and comment on its proposed final corrective measures, including a detailed description and justification for the proposal (the "Statement of Basis"). Following the public comment period, U.S. EPA will select the final corrective measures, and will notify the public of the decision and rationale in a "Final Decision and Response to Comments" ("Final Decision").

19. Upon notice by U.S. EPA, Morton must implement the final corrective measures selected in U.S. EPA's Final Decision according to the schedule in the Final Decision.

20. Reporting and other requirements:

- a. Morton must establish a publicly accessible repository for information regarding site activities and conduct public outreach and involvement activities.
- b. Morton must provide quarterly progress reports to U.S. EPA by the fifteenth day of the month after the end of each quarter. The report must list work performed to date, data collected, problems encountered, project schedule, and percent project

completed.

- c. The parties will communicate frequently and in good faith to assure successful completion of the requirements of this Order, and will meet on at least a semi-annual basis to discuss the work proposed and performed under this Order.
- d. Morton must provide a Final Remedy Construction Completion Report documenting all work that it has performed pursuant to the schedule in U.S. EPA's Final Decision.
- e. If ongoing monitoring or operation and maintenance is required after construction of the final corrective measures, Morton must include an operations and maintenance plan in the Final Remedy Construction Completion Report. Morton must revise and resubmit the report in response to U.S. EPA's written comments, if any, by the dates U.S. EPA specifies. Upon U.S. EPA's written approval, Morton must implement the approved operation and maintenance plan according to the schedule and terms of the plan.
- f. Any risk assessments Morton conducts must estimate human health and ecological risk under reasonable maximum exposure for both current and reasonably expected future land use scenarios. In conducting the risk assessments, Morton will follow the Risk Assessment Guidance for Superfund (RAGS) or other appropriate U.S. EPA guidance. Morton will use appropriate, conservative screening values when screening to determine whether further investigation is required. Appropriate screening values include those derived from Federal Maximum Contaminant Levels, U.S. EPA Region 9 Preliminary Remediation Goals, U.S. EPA Region 5 Ecological Screening Levels, U.S. EPA Region 5 Risk Based Screening Levels, or RAGS.
- g. All sampling and analysis conducted under this Order must be performed in accordance with the Region 5 RCRA Quality Assurance Project Plan Policy (April 1998) as appropriate for the site, and be sufficient to identify and characterize the nature and extent of all releases as required by this Order. U.S. EPA may audit laboratories Morton selects or require Morton to purchase and have analyzed any performance evaluation samples selected by U.S. EPA which are compounds of concern. Morton must notify U.S. EPA in writing at least 14 days before beginning each separate phase of field work performed under this Order. At the request of U.S. EPA, Morton will provide or allow U.S. EPA or its authorized representative to take split or duplicate samples of all samples Morton collects under this Order.

21. Project Managers can agree in writing to extend, for 90 days or less, any deadline in this Section; however, extensions of greater than 90 days require approval from the Chief,

## VII. ACCESS

22. Upon reasonable notice, and at reasonable times, U.S. EPA, its contractors, employees, and any designated U.S. EPA representatives may enter and freely move about the facility to, among other things: interview facility personnel and contractors; review Morton's progress in carrying out the terms of this Order; conduct tests, sampling, or monitoring as U.S. EPA deems necessary; use a camera, sound recording, or other documentary equipment; and verify the reports and data Morton submits to U.S. EPA. Morton will permit such persons to inspect and copy all non-privileged photographs and documents, including all sampling and monitoring data, that pertain to work undertaken under this Order and that are within the possession or under the control of Morton or its contractors or consultants. Morton may request split samples, or copies of all photographs, tapes, videos or other recorded evidence created by U.S. EPA and releaseable under the Freedom of Information Act.

23. If Morton must go beyond the facility's boundary to perform work required by this Order, Morton must use its best efforts to obtain the necessary access agreements from the present owner(s) of such property within 30 days after Morton knows of the need for access. Any such access agreement must provide for access by U.S. EPA and its representatives. Morton must submit a copy of any access agreement to U.S. EPA's Project Manager. If it does not obtain agreements for access within 30 days, Morton must notify U.S. EPA in writing within 14 additional days of both the efforts undertaken to obtain access and the failure to obtain access agreements. U.S. EPA may, at its discretion, assist Morton in obtaining access.

24. Nothing in this Section limits or otherwise affects U.S. EPA's right of access and entry under applicable law, including RCRA and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675.

## VIII. RECORD PRESERVATION

25. Morton must retain, during the pendency of this Order and for at least six years after the Order terminates, all data and all final documents now in its possession or control or which come into its possession or control which relate to this Order. Morton must notify U.S. EPA in writing 90 days before destroying any such records, and give U.S. EPA the opportunity to take possession of any non-privileged documents. Morton's notice will refer to the effective date, caption, and docket number of this Order and will be addressed to:

Director  
Waste, Pesticides and Toxics Division  
U.S. EPA, Region 5  
77 W. Jackson Blvd.  
Chicago, IL 60604-3590

Morton will also promptly give U.S. EPA's Project Manager a copy of the notice.

26. Within 30 days of retaining or employing any agent, consultant, or contractor ("agents") to carry out the terms of this Order, Morton will enter into an agreement with the agents to give Morton a copy of all data and final non-privileged documents produced under this Order.

27. Morton will not assert any privilege claim concerning any data gathered during any investigations or other actions required by this Order.

#### IX. STIPULATED PENALTIES

28. Morton must pay the following stipulated penalties to the United States for violations of this Order:

- a. For failure to submit quarterly progress reports by the dates scheduled in paragraph 20, above: \$3,000 per day for the first 14 days and \$5,000 per day thereafter.
- b. For failure to adequately demonstrate that current human exposures are under control by April 1, 2002: \$10,000 per day.
- c. For failure to adequately demonstrate that groundwater migration is stabilized by April 1, 2002: \$10,000 per day.
- d. For failure to submit the Final Corrective Measures Proposal in paragraph 15 by June 1, 2002: \$3,000 per day for the first 14 days and \$6,000 per day thereafter.
- e. For failure to implement according to the approved schedule, the selected final corrective measures as described in paragraphs 18 and 19: \$6,000 per day for the first 14 days and \$10,000 per day thereafter.
- f. For failure to submit the Final Remedy Construction Completion Report as scheduled in paragraph 15: \$3,000 per day for the first 14 days and \$6,000 per day thereafter.
- g. For failure to submit the Current Conditions Report required in paragraph 11 within 60 days after the effective date of the Order: \$2,000 per day for the first 14 days and \$4,000 per day thereafter.

29. Whether or not Morton has received notice of a violation, stipulated penalties will begin to accrue on the day a violation occurs, and will continue to accrue until Morton complies. For items b and c, above, stipulated penalties will not accrue during the period, if any, beginning

31 days after the Environmental Indicators Report is due until the date that U.S. EPA notifies Morton in writing of any deficiency in the required demonstration(s). Separate stipulated penalties for separate violations of this Order will accrue simultaneously.

30. Morton must pay any stipulated penalties owed to the United States under this Section within 30 days of receiving U.S. EPA's written demand to pay the penalties, unless Morton invokes the dispute resolution procedures under Section X: Dispute Resolution. A written demand for stipulated penalties will describe the violation and will indicate the amount of penalties due.

31. Interest will begin to accrue on any unpaid stipulated penalty balance beginning 31 days after Morton receives U.S. EPA's demand letter. Interest will accrue at the current value of funds rate established by the Secretary of the Treasury. Under 31 U.S.C. § 3717, Morton must pay an additional penalty of six percent per year on any unpaid stipulated penalty balance more than 90 days overdue.

32. Morton must pay all penalties by certified or cashier's check payable to the United States of America, or by wire transfer, and will send the check to:

U.S. Department of the Treasury  
Attention: U.S. EPA Region 5, Office of the Comptroller  
P.O. Box 70753  
Chicago, Illinois 60673.

A transmittal letter stating the name of the facility, Morton's name and address, and the U.S. EPA docket number of this action must accompany the payment. Morton will simultaneously send a copy of the check and transmittal letters to the U.S. EPA Project Manager.

33. Morton may dispute U.S. EPA's assessment of stipulated penalties by invoking the dispute resolution procedures under Section X: Dispute Resolution. The stipulated penalties in dispute will continue to accrue, but need not be paid, during the dispute resolution period. Morton must pay stipulated penalties and interest, if any, according to the dispute resolution decision or agreement. Morton must submit such payment to U.S. EPA within 30 days after receiving the resolution according to the payment instructions of this Section.

34. Neither invoking dispute resolution nor paying penalties will affect Morton's obligation to comply with the terms of this Order not directly in dispute.

35. The stipulated penalties set forth in this Section do not preclude U.S. EPA from pursuing any other remedies or sanctions which may be available to U.S. EPA for Morton's violation of any terms of this Order. However, U.S. EPA will not seek both a stipulated penalty under this Section and a statutory penalty for the same violation.



## **X. DISPUTE RESOLUTION**

36. The parties will use their best efforts to informally and in good faith resolve all disputes or differences of opinion.

37. If either party disagrees, in whole or in part, with any decision made or action taken under this Order, that party will notify the other party's Project Manager of the dispute. The Project Managers will attempt to resolve the dispute informally.

38. If the Project Managers cannot resolve the dispute informally, either party may pursue the matter formally by placing its objections in writing. A written objection must state the specific points in dispute, the basis for that party's position, and any matters which it considers necessary for determination.

39. U.S. EPA and Morton will in good faith attempt to resolve the dispute through formal negotiations within 21 days, or a longer period if agreed in writing by the parties. During formal negotiations, either party may request a conference with appropriate senior management to discuss the dispute.

40. If the parties are unable to reach an agreement through formal negotiations, within 14 business days after any formal negotiations end, Morton and U.S. EPA's Project Manager may submit additional written information to the Director of the Waste, Pesticides and Toxics Division, U.S. EPA Region 5. U.S. EPA will maintain a record of the dispute, which will contain all statements of position and any other documentation submitted pursuant to this Section. U.S. EPA will allow timely submission of relevant supplemental statements of position by the parties to the dispute. Based on the record, U.S. EPA will respond to Morton's arguments and evidence and provide a detailed written decision on the dispute signed by the Director of the Waste, Pesticides and Toxics Division, U.S. EPA Region 5 ("EPA Dispute Decision").

41. If, at the conclusion of the Dispute Resolution process, Morton notifies U.S. EPA that it refuses to implement U.S. EPA's selected final corrective measures, U.S. EPA will endeavor to pursue the action(s) it deems necessary, if any, within a reasonable period of time.

## **XI. FORCE MAJEURE AND EXCUSABLE DELAY**

42. Force majeure, for purposes of this Order, is any event arising from causes not foreseen and beyond Morton's control that delays or prevents the timely performance of any obligation under this Order despite Morton's best efforts.

43. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a force majeure event, Morton must notify U.S. EPA within two business days after learning that the event may cause a delay. If Morton wishes to claim a force majeure event, within 15 business days thereafter Morton must provide to U.S.

EPA in writing all relevant information relating to the claim, including a proposed revised schedule.

44. If U.S. EPA determines that a delay or anticipated delay is attributable to a force majeure event, U.S. EPA will extend in writing the time to perform the obligation affected by the force majeure event for such time as U.S. EPA determines is necessary to complete the obligation or obligations.

## **XII. MODIFICATION**

45. This Order may be modified only by mutual agreement of U.S. EPA and Morton, except as provided in Section VI - Work to be Performed. Any agreed modifications will be in writing, will be signed by both parties, will be effective on the date of signature by U.S. EPA, and will be incorporated into this Order.

## **XIII. RESERVATION OF RIGHTS**

46. Nothing in this Order restricts U.S. EPA's authority to seek Morton's compliance with the Order and applicable laws and regulations. For violations of this Order, U.S. EPA reserves its rights to bring an action to enforce the Order, to assess penalties under Section 3008(h)(2) of RCRA, 42 U.S.C. § 6928(h)(2), and to issue an administrative order to perform corrective actions or other response measures. In any later proceeding, Morton will not assert or maintain any defense or claim of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon a contention that the claims raised by U.S. EPA or the United States in the later proceeding were or should have been raised here. This Order is not a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, or authorities of U.S. EPA.

47. U.S. EPA reserves all of its rights to perform any portion of the work consented to here or any additional site characterization, feasibility study, and remedial work as it deems necessary to protect human health or the environment.

48. If U.S. EPA determines that Morton's actions related to this Order have caused or may cause a release of hazardous waste or hazardous constituent(s), or a threat to human health or the environment, or that Morton cannot perform any of the work ordered, U.S. EPA may order Morton to stop implementing this Order for the time U.S. EPA determines may be needed to abate the release or threat and to take any action that U.S. EPA determines is necessary to abate the release or threat.

49. Morton does not admit any of U.S. EPA's factual or legal determinations. Except for the specific waivers in this Order, Morton reserves all of its rights, remedies and defenses, including all rights and defenses it may have: (a) to challenge U.S. EPA's performance of work; (b) to challenge U.S. EPA's stop work orders; and (c) regarding liability or responsibility for

conditions at the facility, except for its right to contest U.S. EPA's jurisdiction to issue or enforce this Order. Morton has entered into this Order in good faith without trial or adjudication of any issue of fact or law. Morton reserves its right to seek judicial review of U.S. EPA actions taken under this Order, including a proceeding brought by the United States to enforce the Order or to collect penalties for violations of the Order.

#### **XIV. OTHER CLAIMS**

50. Morton waives any claims or demands for compensation or payment under Section 106(b), 111, and 112 of CERCLA against the United States or the Hazardous Substance Superfund established by 26 U.S.C. § 9507 for, or arising out of, any activity performed or expense incurred under this Order. Additionally, this Order is not a decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

#### **XV. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT**

51. Morton indemnifies, saves and holds harmless the United States, its agencies, departments, agents, and employees, from all claims or causes of action arising from or on account of acts or omissions of Morton or its officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Order. This indemnification will not affect or limit the rights or obligations of Morton or the United States under their various contracts. This indemnification will not create any obligation on the part of Morton to indemnify the United States from claims arising from the acts or omissions of the United States.

#### **XVI. SEVERABILITY**

52. If any judicial or administrative authority holds any provision of this Order to be invalid, the remaining provisions will remain in force and will not be affected.

#### **XVII. TERMINATION AND SATISFACTION**

53. Morton may request that U.S. EPA issue a determination that Morton has met the requirements of the Order for all or a portion of the facility. Morton may also request that U.S. EPA issue a "no further interest" or "no further action" determination for all or a portion of the facility.

54. The provisions of the Order will be satisfied upon Morton's and U.S. EPA's execution of an "Acknowledgment of Termination and Agreement on Record Preservation and Reservation of Rights", consistent with U.S. EPA's Model Scope of Work.

55. Morton's execution of the Acknowledgment will affirm its continuing obligation to preserve all records as required by Section VIII, to maintain any necessary institutional controls

or other long terms measures, and to recognize U.S. EPA's reservation of rights as required in Section XIII.

**XVIII. EFFECTIVE DATE**

56. This Order is effective on the date that U.S. EPA signs the Order.

**IT IS SO AGREED:**

DATE: \_\_\_\_\_

BY: \_\_\_\_\_  
Glenn E. Schaaf  
Health, Safety & Environmental  
Morton International, Inc.

**IT IS SO ORDERED:**

DATE: \_\_\_\_\_

BY: \_\_\_\_\_  
Joseph M. Boyle, Chief  
Enforcement and Compliance Assurance Branch  
Waste, Pesticides and Toxics Division  
U.S. Environmental Protection Agency  
Region 5